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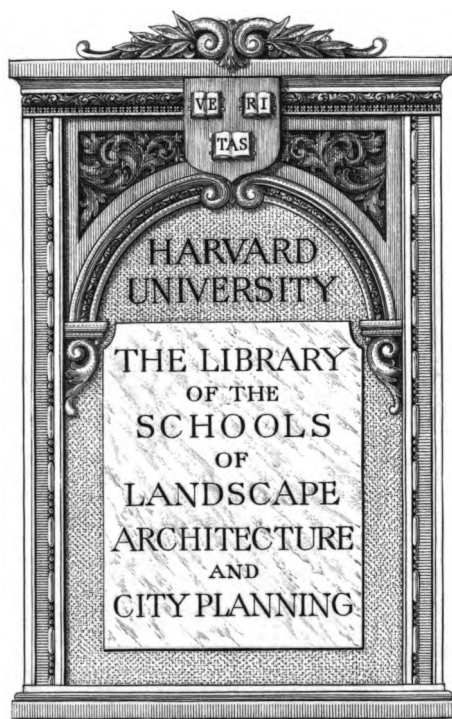
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NINTH ANNUAL REPORT

OF THE

MASSACHUSETTS

HIGHWAY COMMISSION.

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JANUARY, 1902.



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# Commonwealth of Massachusetts.

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*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The undersigned commissioners, appointed under the provisions of chapter 476 of the Acts of 1893, entitled "An Act to provide for the appointment of a Highway Commission to improve the public roads, and to define its powers and duties," and under the provisions of chapter 474 of the Acts of 1900, entitled "An Act relative to the Massachusetts Highway Commission," herewith submit their ninth annual report.

W. E. McCLINTOCK.

HAROLD PARKER.

JOHN H. MANNING.

BOSTON, MASS., Dec. 26, 1901.





# LIST OF OFFICERS OF THE MASSACHUSETTS HIGHWAY COMMISSION.

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WILLIAM E. MCCLINTOCK,	}	. . . . .	Commissioners.
HAROLD PARKER,			
JOHN H. MANNING,			

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AUSTIN B. FLETCHER,	. . . . .	Secretary.
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JOHN M. MCCARTHY,	. . . . .	Clerk.
EDWARD A. AUSTIN,	. . . . .	Clerk.
MARY A. RILEY,	. . . . .	Stenographer.
ELTING J. O'HARA,	. . . . .	Stenographer.
ALICE M. WORTHEN,	. . . . .	Copyist.
FRED FAIR,	. . . . .	Office Boy.



# ANNUAL REPORT

OF THE

## MASSACHUSETTS HIGHWAY COMMISSION.

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In accordance with the provisions of the act of July 10, 1900, appropriating for the construction and maintenance of State highways, \$100,000 became available for the use of the commission on Jan. 1, 1901. On April 10, 1901, the sum of \$500,000 was appropriated by the Legislature for the same purpose, and with the condition that \$100,000 should not be available until Jan. 1, 1902. The commission, therefore, has had the sum of \$500,000 which could be used for work during the year. In addition to the \$100,000 held over from the appropriation of 1900, considerable sums allotted for expenditure during that year were actually disbursed during the year 1901, unavoidable delays having prevented the completion of several contracts.

Additional lay-outs were made during 1901, amounting to 325,705 feet (61.68 miles), bringing the grand total up to 1,993,643 feet (377.58 miles). The number of miles of road finished during the year was approximately 62, making a total of about 358 miles of completed State highway at the end of the year 1901. On most of the remaining 20 miles laid out but not completed the work is in various stages of progress, although in a few instances no work will be done under the contracts before the coming spring.

### MEETINGS OF THE COMMISSION.

The commission has held 81 meetings at its office in Boston during the past year, besides many others at different points in the State. The regular hearings provided for in the statutes were held, at least one in every county in the State. These hearings have generally been well attended.

Important discussions have occurred at these meetings, touching upon methods of construction, materials and road machinery, and the commission has thereby been enabled to give and to obtain much valuable information. From the testimony of the selectmen the commission is much pleased to report that fully fifty towns in different parts of the Commonwealth have made appropriations and built macadam roads.

The macadam roads thus built by the towns since 1894, and independent of the State roads, measure in the aggregate about 500 miles. The object lesson furnished by the State has had its effect on the towns, and they are in most instances carefully considering drainage, foundation and other details of construction.

In addition to the county hearings, over 175 special hearings, relating to particular petitions, have been held, mostly in the office in Boston. During the winter months these hearings consume a large share of the time of the commission, but information is thus obtained as to local conditions that is of great value to the commission when the allotments are made.

The method adopted last year, of dividing the State into three divisions, with each member of the commission to investigate the needs of his division, has worked very satisfactorily during the present year. Under this system there have been few delays, and in the "small town" work particularly it has been possible to determine the local conditions and make recommendations as to what should be done and the best manner of doing it. The whole Board has, in addition to the division work, made various trips to different parts of the State, in order to acquaint itself with the general manner of constructing and maintaining the State roads, and also to examine roads which the municipal authorities have petitioned to be taken as State roads. The commissioners find such trips to be absolutely necessary to keep them in touch with the work.

#### CONTRACTS.

All work done by the commission must be done by contract, either with the town or city authorities, or, after due advertisement, with private contractors.

The main difficulty in carrying on road work by contract is the delay which occurs from the breaking of machinery and

from the lack of labor. In the agricultural districts it is often impossible to hire men during the season of harvesting the crops, and consequently all work ceases for a time. So far as possible, contracts are let so that the work can be prosecuted at such times as not to interfere with the farm work, but such action is not at all times possible.

Many of the men employed by the commission to look after the State's interests have been at the work several years, and are thoroughly competent. Other men lack judgment at critical points, and cause more or less trouble to both the commission and the contractor; but the number of experienced men is increasing each year, and as a result the work proceeds more evenly, while the cost is being reduced.

Surveys of contemplated roads are made so as to give ample time for the studying of the grades and drainage; and in the main the work is being carried on in a very satisfactory manner. Many of the surveys are made in the winter by the resident engineers, thus keeping them at work, and making it possible to give them permanent employment and prevent their seeking employment elsewhere, which would be likely to occur if they were dropped even for a short time.

During the year 87 contracts were entered into, of which 27 were with town or city authorities and 60 with private individuals or corporations.

#### PETITIONS.

The total number of petitions for the location and construction of State highways up to the issue of this report is 561. Fifty-three new petitions were received during the year 1901. These petitions cover 1,469 miles of road, and they are from 277 towns and 25 cities. All of the petitions received during the past year were from towns, and they cover 135 miles of road not previously petitioned for.

#### STREET RAILWAYS.

The difficulties resulting from street railway tracks upon State highways, referred to in the last report of the commission, have materially increased during the year. There are at the present time street railways operating on State roads in 99 different cities and towns. In 4 of these municipalities there

are 2 different companies. The length of street railway tracks has been increased by 251 miles during the year, while 32,-200,000 more passengers were carried than during the previous year.

There is a gradually growing tendency on the part of the town authorities to have the street railway tracks placed well out toward the sides of the roads and clear of the travelled way. In many instances the street railway companies have placed their tracks at a permanent grade and graded the entire width of the travelled way, thus obviating the necessity of any further movement of the tracks.

Two petitions have been received by the commission, jointly signed by the selectmen of the towns and the presidents of the street railway companies, for the establishment of lines and grades of the tracks of the street railway companies, the grading of the highways and partial payments of the cost of grading by the Commonwealth, in accordance with the provisions of section 38, chapter 112 of the Revised Laws. In both instances the benefit to the traveller by either the street railway or the highway would be great. No official action has yet been taken on these petitions, as they were presented after the allotments for the year had been made by the commission, and consequently there were no available funds.

Chapter 112 of the Revised Laws requires all street railway companies to pay an excise tax to the different cities and towns, based upon the ratio of the miles of track in the city or town to the total miles operated by the railway company. Section 11 specifies that street railway companies shall not be required to keep any portion of the surface material of streets, roads and bridges in repair. It is unquestionably a fact that on State roads the Commonwealth is required to perform the same duties as are performed by municipalities on their roads, and maintain the surface of that part of the highway location occupied by the street railway tracks. The additional cost resulting from this class of work apparently increases the annual cost per mile of maintenance of State highways; but it works no hardship on the Commonwealth, as in no case will the amount thus expended be equal to the \$50 per mile which may be charged to the town as its share of the annual cost of maintenance.

Section 45, chapter 112 of the Revised Laws, reads as fol-

lows: "If, upon the trial of an action against a city, town, railroad corporation or bridge corporation, the plaintiff recovers damages for an injury to his person or property which was caused by reason of a defect in a street, highway or bridge which is occupied by the tracks of a street railway company, and the street railway company is liable for such damages and has had reasonable notice to defend the action, the city, town, railroad corporation or bridge corporation may recover the damages, and all the costs of both plaintiff and defendant in the action from the street railway company."

In an opinion of the Attorney-General, given to the commission during the past year, it would appear that the Commonwealth may be required to defend a suit for damages for injuries to a person travelling in a street railway car. The opinion further says: "If in such a case the Commonwealth were obliged to pay damages, there is no statutory provision giving a remedy over against the street railway company to the Commonwealth, as is provided in the case of cities, towns, steam railroads or bridge corporations." This is such an obvious oversight that the commission feels that it has but to call attention to it to have a correction made.

In the last report of the commission attention was called to the defective system of granting locations to street railway companies by boards of selectmen. The commission wishes to emphasize what it said a year or more ago, and urges the necessity of placing the approval of such locations in the hands of one central authority. With the law as it now stands, two or more rival street railway companies may obtain locations from the same local board over the same road, or one company may obtain a location in one town and another company may secure the right of way in the adjacent town, the result being that the building of a through street railway becomes an impossibility. A carefully worded opinion of the Attorney-General satisfies the Board that it has no power to adjudicate on petitions of different street railway companies, but must approve or disapprove locations granted by local authorities, and in the order in which they reach the commission. While the present law might have been thoroughly satisfactory up to a comparatively recent date, there can be no question that, with the present enormous growth of the street railway system, it is

obsolete, and should be made to conform to the changed conditions.

In the main, the relations of the Highway Commission and street railway companies are satisfactory. There are many questions of law not as yet well understood, but, as the street railway companies are willing to meet the commission on fairly liberal terms, no special reference will be made to them at the present time.

#### COUNTY ASSESSMENTS.

In accordance with the provisions of the statutes, the several counties in which State roads are built are required to repay to the State one-quarter of the amount expended during the year. The time of this repayment may, if desired, extend over six years from the date of the assessment; but in several instances, including some of those in which the amount of the assessment is greatest, the counties have preferred to pay the entire sum due at the end of each year. The amount assessed upon the counties during the year 1901 was \$107,505.30.

#### ESTIMATES FOR 1902.

For the year 1902 the commission has recommended an appropriation of \$500,000, with the condition, as heretofore, that \$100,000 should be available only after Jan. 1, 1903. This sum is believed to be necessary and sufficient for the proper extension of the great system of State highways, of which already more than 350 miles have been constructed. The commission is of the opinion that the sum recommended can be expended with greater efficiency and economy than either a larger or a smaller amount; and it also believes that an appropriation of this sum for each year, for at least two years in advance, would greatly facilitate all engineering and construction work, and materially reduce the cost of the same.

#### LAND AND GRADE DAMAGES.

The laying out of State highways has been much expedited and many costly delays prevented by the act of last year, which enables local boards to save the Commonwealth harmless against all claims and demands for damages which may be sustained by any person whose property has been taken for or injured by the construction of any highway which the Highway Commis-



sion proposes to lay out and construct as a State highway. It is now and always has been the policy of the Highway Commission to cause as little damage to abutting land owners as is consistent with good grades and complete drainage, and to perform such work as may seem necessary to do away with unsightly features and to allow of a reasonably safe use of driveways. The releases of either the abutters or local boards are intended to protect the Commonwealth against unjust claims.

It often happens that after a careful study of a lay-out and grade there are individual cases where injury is preventable by a slight and comparatively unimportant change of either line or grade. The Board is always ready to consider such changes, even although a release has been signed.

For outstanding claims against the Commonwealth, see Appendix C.

#### CONSTRUCTION.

The methods employed by the commission in building State roads have been thoroughly described in previous reports, and will not be repeated at this time.

The main difficulty the commission has to contend with is to apply the method which will give perfectly safe and at the same time economical results when the road to be built passes over a sub-grade of doubtful soil. Such roads can be built to bear up the heaviest load that may be expected to pass over them during all conditions of weather; but when the drainage and foundation which may seem to be necessary to produce good results are effected, the cost is great, and unless these precautions are required, the heavy cost is unnecessary.

It is a well-known fact to road builders that, with reasonably good grades, the surface of the road is much easier to maintain on grades than on the low ground between two hills or on any flat grade. This is particularly true of gravel roads.

The soils found in the sub-grades may be divided into three general classes; first, sand or gravel; second, clay; and third, sandy loam.

1. *Sand or Gravel.* — The thickness of the roadway surfacing over sand and gravel is determined by the weight and volume of traffic alone. On roads of light traffic this thickness is four inches, which is increased to six inches on heavy-traffic roads.

The increased thickness is used more particularly to reduce the cost of maintenance, as by its use the road will wear a much longer period of time before it will require picking up and re-surfacing.

The main feature of building thin macadam roads over sand is to thoroughly compact the stone by rolling before opening them to traffic, as by so doing subsequent movement of the fragments of broken stone is prevented, and ruts will not develop.

2. *Clay.* — Clay as found in sub-grades is a variable substance. It may be a pure blue clay, or it may be mixed with sand in different proportions. The pure blue clay sub-grade requires heroic treatment, if positive stable results are expected. The ground water must be removed as far as possible, to insure a reasonably dry foundation. This may be done by one or two side drains, the number depending upon the general slope of the adjacent ground, or by a centre drain.

It is customary to place one drain on the up-hill side, and one on each side in a cut or on a level grade. It is not at all times an easy problem to determine whether side or centre drains should be put in, and no general rule can be laid down that will cover this part of the work. A special study must be made of the sub-grade and of the stone or gravel supply, and comparative estimates based upon these studies will make an intelligent conclusion possible. If a good quality of gravel can be found within a reasonable distance from the road which is being built, it is economical to spread it on the roadway to a depth of from two to six inches over the clay sub-grade, and on this gravel to spread the broken stone. The gravel thus placed serves a double purpose, — it improves the drainage and reduces the depth of the broken stone surfacing. Gravel placed in this manner should be used only when it can be placed on the road for a price that is less than would be paid for broken stone; at the same cost per cubic yard, broken stone is preferable.

Clay that is mixed with more or less sand has to be studied very carefully. If the percentage of sand is large and the grains of sand coarse, the drains on grades may possibly be omitted and probably need be put over only fairly level places, and the thickness of the broken stone and of the gravel may be lessened. If, on the other hand, the sand be fine-grained and

in smaller proportion, a great deal of judgment is needed to know just how it should be treated.

The standard thickness of covering should be used on level stretches, with a possible reduction in depth on grades. If any weakness develops later on, the thickness of covering may be obtained by spreading on more stone and rolling it.

On the same principle, the drains may be omitted at the time of building, putting them where needed only at any subsequent time, if the roadway shows indications of rutting.

3. *Sandy Loam.* — A sub-grade of sandy loam is the most difficult to know how to treat. Generally speaking, if thirty per cent. or more of the material will pass through a No. 100 screen, the introduction of a drain does no particular good, the capillarity of the soil being so great that it will not give out the ground water. Under frost action the bearing-up properties are very poor, and the thickness of the covering will have to be increased until the weight is distributed over an area large enough to reduce the pressure to a safe limit.

When this kind of soil is met with, it is exceedingly variable in quality, and unless tests are made at very short intervals, its character cannot be determined. It is therefore well to place the broken stone, or stone and good gravel, on the road to a depth of twelve or fourteen inches when the sandy loam is known to be poor, and to reduce this thickness to six inches when it is of doubtful quality. If in the use of the road weak spots develop, these spots can be strengthened by placing more stone over that already there, and thus increase the thickness. By this method no greater outlay is incurred than is actually necessary, as determined by experience.

The commission finds that each year the number of good road builders is increasing. In its early work few of the engineers employed by the commission, or of the superintendents or road commissioners engaged on town work, had had experience in modern road building. A marked improvement is shown in the engineers, while many of the towns' road officers are capable of building as good a road as is built by the commission. In many cases where a town has taken the contract to build a State road, and their superintendent is fitted to do so, he is allowed to proceed without a resident engineer. It is the intention of the commission to conduct the work in this manner wherever

possible, as by so doing a large saving can be made in the engineering expenses, while the town officers will be benefited by the experience. An occasional visit of the division engineers to the different roads under construction will enable the commission to see that the contracts are being properly carried out. Another change in the same direction is to build without any preliminary survey, whenever the road to be built presents no unusual features.

#### GRADES.

The importance of reducing hills to a reasonably low grade has been referred to so many times in the reports of the commission that there seems no necessity for repeating the arguments at the present time. The commission, so far as possible, is grading long stretches of road and covering them with the best available material, leaving the more permanent surfacing to be done in the future and at those parts only that require it. There can be no question but that such treatment will be thoroughly satisfactory. It will materially increase the efficiency of the entire length of the road, and will do it at a cost much below what would be entailed by completing short sections at different times.

#### COST.

The commission has constantly in mind the cost of the roads built under its direction, and by a careful study of each road to be built strives to eliminate every item which appears to be unnecessary to give good and lasting results. The conditions met with in some parts of the State are so complex that the average cost per mile for the entire Commonwealth will continue to be fairly high, notwithstanding the simple requirements of other sections.

No class of public work offers greater opportunity for watchfulness than does road building. This watchfulness must begin with the preliminary survey and continue throughout the planning and building, and end only when the last stroke of work is performed. Imperfect planning and incompetent supervision are the two principal causes of unnecessarily high-cost work. When the survey of a road is now ordered, ample time is allowed to carefully study the quality and location of materials, the nature of the sub-soil which is to constitute the foundation, the different parts of the drainage problem, and the grades.

Particular attention is paid to the old surfacing material, with reference to utilizing it as far as possible; and it frequently happens that this last item determines the thickness of broken stone or gravel to be placed on the improved roadway. While there still remain many opportunities, the commission feels confident that great improvement is shown in planning the work. With the increased experience, which can only come from long-continued practice, the engineers charged with looking after the interests of the Commonwealth, and the contractors, whether municipal or private, who are building the roads, are performing their duties more intelligently and consequently more economically. During no year since the commission began its work have better roads been built, and at no time has the average cost per mile been so low as during the present year. The fact must not be lost sight of that many of the cities and towns have by vote accepted the eight-hour day permitted by legislative enactment. Some of these same municipalities have fixed the rate of labor at two dollars per day. Under such conditions it is hardly reasonable to suppose that the low cost of road building in some of the neighboring States can be reached in Massachusetts.

In Appendix G will be found a table showing the cost per mile of roads built during the year 1901.

#### MAINTENANCE.

The cost of maintaining State roads, being, as it must be, a constantly increasing item, has caused the commission many hours of thought and investigation. In making the annual report of this expenditure it is but fair to say that all the money received from the various towns for State road maintenance, within their respective boundaries, is received by the State Treasurer, and is not credited to the Highway Commission; so that, as the length of the State highway system increases, the repair account also grows, and, notwithstanding the payments made by the towns, less is each year available for construction out of the annual appropriation.

Under the street railway law of 1898 the excise tax paid by street railways to towns for the maintenance of roads over which they are built must still be paid to such towns, although it may well be that all the street railways within the limits of

such towns are located on State highways. As the purpose of this law was to pay back to towns the extra cost of maintaining roads caused by the presence of street railways upon them, it does not seem just that this amount should be so paid where the cost of such maintenance is borne by the State.

In constructing a system of State roads, the object has been and is to secure for the State a net-work of thoroughly built highways, connecting the towns together and ultimately reaching every part of the Commonwealth. These highways are devised and built upon the most approved methods, with grades, drainage and foundations designed to last forever, with proper care, the only perishable portion being the surface. It is necessary, then, to keep a constant watch on this portion of the roads, to see that no defect remains uncorrected; that any depression that will hold moisture is immediately filled; that all accumulations of sand or mud are removed; that all outlets for the immediate escape of water are kept free; that grass in grass gutters is mowed; and that innumerable other items of care are attended to. In addition to all this, the original stone or gravel surface in time wears out and must be removed. This is what the care of State roads means, and it has been the aim of the commission to find out the most economical way to do it. Where continuous sections of State road exist, as is now the case in many parts of the State, it has been found well to make contracts with reliable persons or with towns to care for specified lengths of road for an agreed-upon price, under the direction of the engineers of the commission. Where the sections are small, this method cannot so well be employed, and in such cases the engineer makes the required repairs, as occasion demands.

Some criticisms have been received of roads that have worn out sooner than they apparently should. That this is a just criticism the commission fully believes. The commission, however, points with some degree of satisfaction to the State highways of Massachusetts as a whole. Many different kinds of stone have been used, for the purpose of discovering the most economical, and some have proved inadequate, but in no instance has more than the surface given away.

The commission has used gravel for building and repairing

State roads wherever such use has been warranted. It is plain that in many parts of the State no gravel can be found, and in these parts either gravel or broken stone must be imported; and, where the cost is approximately the same, broken stone has usually been employed, being more enduring. In other parts good gravel prevails. In these locations it is the opinion of the commission that the State roads should be made and repaired with gravel, except in places where the travel is heavy and constant. Whether a State road is of stone or gravel, the same method of preparing the sub-grade for the surface is employed, so that, if a gravel road proves insufficient, its surface can easily and at a small cost be covered with stone.

#### “SMALL TOWN” WORK.

Under the provisions of chapter 432 of the Acts of 1900 there have been filed with the commission 131 petitions, from 86 towns; and 74 allotments have been made, in 63 towns.

As a result of the studies of the highways and town ways in the various towns, it is found that there has been a constant deterioration of the road surfaces for many years. This is due to several causes. The first, and the principal one, comes from a general disregard of necessary drainage. In nearly all of the towns the gutters are filled with vegetation, or have been neglected for so long a time that the roadway becomes its own drainage bed. The next cause, and one perhaps equally as injurious in its effect, is the wrong use of the road machine. The road machine, when used for shaping new construction and for cleaning the gutters of worn-out material which has been washed from the road, is very useful; but when it is used for scraping upon the surface the worn-out material washed to the sides, the result is a most serious injury, making a road dusty in dry weather and muddy in wet weather, and possessing not a single good quality. Not a few localities have been found in which the use of the road machine has been continued for many years, and in such places the roads gradually deteriorate.

Road repairing is a very serious problem with many of the towns, especially in the western part of the State, where the expense is very high, on account of the lack of proper material. As there are many instances where the soil is generally hard-

pan or clay, and there is an ample supply of field stone, the commission is of the opinion that stone crushers should be placed in the various counties, so that crushed stone may be used as a substitute for the otherwise poor materials.

The fact that in western Massachusetts many of the towns have declined in population and wealth, but still have as many or more miles of road to care for as formerly, renders the burden of maintaining their roads very heavy, if not actually insupportable. Roads have even been found in some of the towns on which there has been no repair work done for over fifteen years. The assistance of the Commonwealth accorded to these towns is therefore peculiarly acceptable, and, though small, as it must be under the law, it is heartily welcomed. As an indication of the appreciation of these towns of the benefit of this work, it may be said that with few exceptions they have very materially added to the State allotments by contributions of their own.

The commission is of the opinion that, on the whole, the "small town" act of 1900 has proved a wise one. Its general effect so far has been exceedingly beneficial to the smaller towns. It is not alone in the material aid given by the State to these towns that they may profit, but the officials acquire a practical knowledge of road building and repair which is felt indirectly on all the roads of the town where work is subsequently done by them. In other words, the commission is convinced that the practical education thus supplied will have a vast influence in producing better roads throughout the State. It may be said in this connection that the "small town" work has a more direct beneficial influence upon road men outside the cities and large towns than have the more expensive and elaborate State roads, which are much beyond the means of the ordinary country road maker. It may be added that in most cases where State aid has been given to towns it has been used in improvements to roads which will ultimately become parts of the State highway system; so that money thus paid out by the State will do a double service, in that a present need is satisfied, and the work so done will reduce the ultimate cost of State roads.

It is impossible for the commission to respond favorably to



all petitions. Every petition must be considered on its merits, and although in general the commission believes that the applications which are received are worthy of allotments, yet some manifestly are not. At the present time 47 petitions are on file, upon which no action has been taken. Of these, a large proportion should receive favorable consideration. It is also probable that many more will be received before next year's allotments are made. It appears, therefore, that the five per cent. of the appropriation for the construction and repair of State highways set aside by the act each year will not be sufficient to do all of the work that the commission would approve. Under last year's amendment to the "small town" act, allowing the expenditure of a second five per cent. in towns of over \$1,000,000 valuation, only one town has petitioned, showing either that the conditions attached to it are unpopular, or that the larger towns are not in need of the State's assistance. It may well be, however, that sufficient time has not yet elapsed since the passage of the act to give it a fair test. The amendments of last year have, without doubt, improved the original "small town" act.

#### STEAM ROAD ROLLERS.

The Commonwealth now owns 17 steam rollers, the purchase of which by the Highway Commission was authorized by various acts of the Legislature. These rollers are primarily for the use of towns of less than 12,000 population, although under certain conditions they may be used in the repair or construction of State roads. These rollers are very heavy. They are run long distances over rough and hilly country roads; loaded onto and unloaded from cars; subjected to rough usage in the heavy work which is required of them, and generally receive such treatment as to demand frequent repairs and the replacement of movable parts which are either lost or stolen. The commission has made a careful study of the problem, and is convinced that the most effective and economical way to care for these machines is to employ a good mechanic, who will not only make the necessary repairs, but will instruct the different roller men how to operate their rollers. Generally speaking, the men employed to run the rollers are well posted on stationary engines, but have little or no experience on machines subject to

the varying conditions which are met with in this class of work. The result is that slight defects often develop into disablement, that is not only costly to remedy but is serious in the loss of time to the town using the roller.

These rollers were meant for the use of small towns, and it was the evident intent of the Legislature that the towns should pay for their maintenance and the cost of operating. As the law is framed at the present time, it is impossible for the commission to make an equitable distribution among the towns using the rollers of the cost of operation and maintenance. The commission would recommend that any money paid into the State treasury by the towns for the use or care of rollers be credited to the State highway fund, to be again used by the commission, instead of being credited to the State highway loan, as the Auditor rules has to be done under the law.

The steam rollers have been generally kept at work during the year, and the improvement in town roads as a result of their use is very marked. In the opinion of the commission, no one act of the Legislature has given a greater impetus to the good roads movement in the Commonwealth than the one authorizing the purchase of rollers.

#### ENGINEERING.

The engineering work of the commission has been conducted during the past year under the direction of Mr. Charles Mills, chief engineer, who has had charge of all the engineering and construction work.

Messrs. A. M. Lovis and S. A. Parsons, first and second assistant engineers, respectively, have had charge of the surveying parties and of the office work. Messrs. W. R. Farrington, J. A. Johnston, F. H. Joyner, F. C. Pillsbury and W. B. Wheeler, division engineers, have had charge of the construction work in the field. The list of resident engineers will be found in Appendix B.

Messrs. H. R. Starbird, D. W. Merrill, E. N. Colburn and F. M. Stuart have been employed as chiefs of survey parties, with Messrs. D. H. Dickinson, E. C. Hayden, N. B. Wilber and G. F. Whittemore as transitmen, and G. G. Bartlett, D. P. Clark, N. Maynard, A. S. Merrill, H. C. Miner, C. B. Hollis and R. E. Kimball as rodmen.

Messrs. J. H. Taylor, D. M. Hudson, C. R. Brown, W. G. Burns, A. Larrabee and C. F. Fitz have been employed in the draughting room as draughtsmen and computers. Mr. E. J. O'Hara has been employed as the chief engineer's stenographer.

Mr. Charles Mills, who had been employed as chief engineer of the commission since it began building State roads, resigned that position on the first day of December. The commission takes this occasion to express its appreciation of the engineering skill of Mr. Mills, and of the permanency of all the work done under his direction. The duties of the office were at all times exacting, and often exceedingly trying. On the resignation of the chief engineer the commission abolished the office, and the duties which were performed by that official will now devolve upon the secretary of the Board and the five division engineers.

#### BRIDGES BEGUN AND COMPLETED DURING THE YEAR.

Two bridges have been built over the Weweantit River, the boundary line between the towns of Wareham and Marion. They are cast-iron pile bridges, with plank floors and brick surfaces, their spans being 106 feet and 80.5 feet, respectively. They were built jointly by the New Bedford & Onset Street Railway Company, the towns of Wareham and Marion and the Highway Commission.

In Williamsburg an old bridge over Mill River has been replaced by a plate-girder bridge having a span of 40 feet. By a change made in the channel of the river two old bridges were abolished, the material obtained from excavating for the new channel being used to fill the old river channel and also to raise the grade of the road.

In West Brookfield, Warren and Marshfield solid floor bridges, consisting of I-beams, brick and concrete arches and macadam surface, have been built, the spans being less than 30 feet.

In addition to the bridges described above, numerous culverts of various sizes have been constructed, to take care of surface water.

### SURVEYS.

During the year surveys for preliminary studies, estimates and lay-outs have been made in 65 towns, a total length of 73 miles ; and grade stakes for construction work have been set in 126 towns, representing a length of 92 miles, part of this being for work unfinished in 1900.

Final surveys have been made in 89 towns, the total length of such surveys being 55 miles. Surveys for "small town" work have been made in 36 towns, a total length of 30 miles ; and about 20 miles of miscellaneous surveys have been made for roads to be constructed by towns.

### OFFICE ENGINEERING WORK.

Plans, profiles and cross-sections have been plotted of surveys in 67 towns, representing a length of 73 miles. The plans and profiles were plotted on a horizontal scale of 40 feet to an inch, the vertical scale being 8 feet to an inch. The cross-sections were plotted on a natural scale of 4 feet to an inch.

Lay-out plans have been made of roads in 91 towns. Plans to accompany decrees for street railway locations on State highways and for provisional locations have been made in 28 towns ; plans and profiles for work under the "small town" act in 33 towns ; and miscellaneous plans, for 20 miles of road, have also been made.

Preliminary estimates in 104 towns, representing 68 miles, have been made, and also final estimates in 79 towns, representing 50 miles.

Bridge plans have been made as follows : —

Nine I-beam bridges, solid floor ; spans, 12 to 28 feet.

One I-beam bridge, wooden floor ; span, 22 feet.

One plate-girder bridge, solid floor ; span, 40 feet.

One plate-girder bridge, wooden floor ; span, 40 feet.

One cast-iron pile bridge, brick floor ; span, 80.5 feet.

One cast-iron pile bridge, brick floor ; span, 106 feet.

## EXPENDITURES.

The following is a summary of the expenditures of the Highway Commission from Dec. 1, 1900, to Dec. 1, 1901 :—

## CONSTRUCTION EXPENDITURES.

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Barnstable County.</i>			
Barnstable, . . . . .	1901	\$1,649 26	
Brewster (1st), . . . . .	1901	8,080 13	
Brewster (2d), . . . . .	1901	4,199 77	
Chatham, . . . . .	1901	1,856 40	
Dennis (1st), . . . . .	1900	825 22	
Dennis (2d), . . . . .	1900	333 39	
Dennis, . . . . .	1901	2,088 40	
Harwich (1st), . . . . .	1900	151 78	
Harwich (2d), . . . . .	1900	2,538 93	
Orleans, . . . . .	1900	878 10	
Provincetown, . . . . .	1901	796 32	
Sandwich, . . . . .	1898	7 61	
Sandwich, . . . . .	1900	4,301 72	
Truro (1900 contract), . . . . .	1895	1,584 84	
Truro (1901 contract), . . . . .	1895	904 99	
			\$24,646 86
<i>Berkshire County.</i>			
Cheshire, . . . . .	1901	\$759 09	
Dalton, . . . . .	1896	197 69	
Lee, . . . . .	1900	9,377 33	
Lenox, . . . . .	1899	108 65	
Lenox, . . . . .	1900	1,203 59	
North Adams, . . . . .	1900	4,958 70	
North Adams, . . . . .	1901	4,857 20	
Pittsfield, . . . . .	1901	3,323 80	
Richmond, . . . . .	1901	2,639 77	
			27,425 82
<i>Bristol County.</i>			
Acushnet, . . . . .	1901	\$2,788 29	
Attleborough, . . . . .	1900	1,059 74	
Attleborough, . . . . .	1901	3,511 20	
Dartmouth, . . . . .	1900	809 47	
Dartmouth, . . . . .	1901	5,725 43	
Easton, . . . . .	1900	1,598 59	
Mansfield, . . . . .	1901	7 20	
Rehoboth, . . . . .	1899	291 05	
Seekonk, . . . . .	1900	3,460 90	
Seekonk, . . . . .	1901	1,741 71	
Somerset, . . . . .	1899	217 30	
Somerset, . . . . .	1900	23 75	
Somerset, . . . . .	1901	19 68	
Taunton, . . . . .	1900	321 50	
Taunton, . . . . .	1901	1,350 70	
			22,426 51
<i>Amount carried forward,</i> . . . . .			\$74,499 19

CONSTRUCTION EXPENDITURES—*Continued.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amount brought forward,</i>			\$74,499 19
<i>Dukes County.</i>			
Edgartown, . . . . .	1900	\$1,781 99	
Edgartown, . . . . .	1901	2,063 11	3,845 10
<i>Essex County.</i>			
Amesbury, . . . . .	1901	\$4,901 87	
Groveland, . . . . .	1900	5,616 14	
Hamilton, . . . . .	1900	13 22	
Haverhill, . . . . .	1899	12,565 29	
Lynn, . . . . .	1897	3,526 85	
Merrimac, . . . . .	1901	4,323 68	
Methuen, . . . . .	1900	2,960 93	
Methuen, . . . . .	1901	4,485 09	
Newbury, . . . . .	1900	4,389 13	
Newbury, . . . . .	1901	362 91	
North Andover, . . . . .	1900	2,398 44	
Salem, . . . . .	1901	1,731 21	
Saugus, . . . . .	1898	376 65	
Saugus (bridges), . . . . .	1898	76 05	
Swampscott, . . . . .	1897	1,018 13	
Swampscott, . . . . .	1900-01	5,692 22	
Wenham, . . . . .	1901	4,277 47	58,715 28
<i>Franklin County.</i>			
Buckland, . . . . .	1898	\$7 06	
Buckland, . . . . .	1900	1,829 61	
Colrain, . . . . .	1901	1,161 51	
Deerfield, . . . . .	1900	4,666 21	
Deerfield, . . . . .	1901	2,497 73	
Erving, . . . . .	1899	164 90	
Erving (1900 contract), . . . . .	1900	108 65	
Erving (1901 contract), . . . . .	1900	2,667 45	
Greenfield, . . . . .	1900	3,111 25	
Montague, . . . . .	1899	2,933 12	
Northfield, . . . . .	1901	16 36	
Orange, . . . . .	1900-01	5,178 00	
Whately, . . . . .	1899	108 55	
Whately, . . . . .	1901	3,586 95	28,037 45
<i>Hampden County.</i>			
Brimfield, . . . . .	1901	\$567 36	
Chester, . . . . .	1900	172 16	
Chester, . . . . .	1901	4,693 14	
Monson, . . . . .	1901	1,063 65	
Palmer, . . . . .	1900	111 10	
Palmer (1st), . . . . .	1901	4,807 33	
Palmer (2d), . . . . .	1901	4,845 06	
Wales, . . . . .	1901	493 13	
<i>Amounts carried forward,</i>		\$16,752 83	\$165,097 02

CONSTRUCTION EXPENDITURES — *Continued.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amounts brought forward,</i>		\$16,752 83	\$165,097 02
Westfield, . . . . .	1901	5,027 70	
Wilbraham (1st), . . . . .	1901	1,527 00	
Wilbraham (2d), . . . . .	1901	24 15	23,331 68
<i>Hampshire County.</i>			
Amherst, . . . . .	1901	\$388 64	
Belchertown, . . . . .	1900	4,686 96	
Belchertown, . . . . .	1901	14 67	
Easthampton, . . . . .	1900-01	5,201 29	
Hadley, . . . . .	1899	521 52	
Hatfield, . . . . .	1901	427 81	
Northampton, . . . . .	1899	65	
Williamsburg, . . . . .	1899	10 86	
Williamsburg, . . . . .	1901	7,364 93	18,617 33
<i>Middlesex County.</i>			
Acton (Great Road), . . . . .	1899	\$24 58	
Acton (Great Road), . . . . .	1900	1,135 04	
Acton (Great Road), . . . . .	1901	5,052 58	
Acton (west), . . . . .	1901	8,278 46	
Bedford, . . . . .	-	1 43	
Chelmsford, . . . . .	1901	4,424 47	
Concord, . . . . .	1900	4,170 04	
Groton, . . . . .	1901	37 76	
Lexington, . . . . .	1900	1,943 61	
Marlborough, . . . . .	1900	38 70	
Marlborough, . . . . .	1901	5,108 57	
Natick, . . . . .	1901	6,181 27	
Newton, . . . . .	1901	6,554 87	
North Reading, . . . . .	1901	5,178 35	
Reading, . . . . .	1900	1,593 19	
Stoneham, . . . . .	1900	4,096 77	
Stoneham, . . . . .	1901	2,787 24	
Sudbury, . . . . .	1900	854 47	
Sudbury, . . . . .	1901	7,642 85	
Tewksbury, . . . . .	1900	117 21	
Tewksbury, . . . . .	1901	2,132 56	
Townsend (1st), . . . . .	1900	937 35	
Townsend (2d), . . . . .	1900	1,705 52	
Townsend (1st contract), . . . . .	1901	43 65	
Townsend (2d contract), . . . . .	1901	1,240 62	
Wayland (1st), . . . . .	1900	1,331 91	
Wayland (2d), . . . . .	1900	4,486 12	
Winchester, . . . . .	1899	169 89	
Winchester, . . . . .	1900	16 42	
Woburn, . . . . .	1900	1,555 93	
Woburn, . . . . .	1901	2,372 07	81,213 50
<i>Amount carried forward,</i>			\$288,259 53

CONSTRUCTION EXPENDITURES — *Continued.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amount brought forward,</i>			\$288,259 53
<i>Nantucket County.</i>			
Nantucket, . . . . .	1899	\$157 43	
Nantucket, . . . . .	1900	1,342 21	
Nantucket, . . . . .	1901	551 14	2,050 78
<i>Norfolk County.</i>			
Braintree, . . . . .	1900	\$4,688 04	
Cohasset, . . . . .	1900	1,546 07	
Foxborough, . . . . .	1901	3,141 68	
Milton, . . . . .	1900	4,457 44	
Walpole, . . . . .	1900	492 69	
Wellesley, . . . . .	1901	6,433 56	
Weymouth, . . . . .	1896	11 24	
Wrentham (1st), . . . . .	1900	189 52	
Wrentham (2d), . . . . .	1900	55 14	
Wrentham, . . . . .	1901	4,549 00	25,564 38
<i>Plymouth County.</i>			
Abington (1st), . . . . .	1900	\$269 04	
Abington (2d), . . . . .	1900	3,695 53	
Abington, . . . . .	1901	4,851 75	
Brockton, . . . . .	1900	765 72	
Lakeville, . . . . .	1901	1,387 21	
Marion, . . . . .	1899	149 19	
Marion (1st), . . . . .	1901	902 42	
Marion (2d), . . . . .	1901	1,993 02	
Marshfield, . . . . .	1901	4,395 49	
Mattapoisett, . . . . .	1900	1,064 47	
Mattapoisett, . . . . .	1901	3,209 17	
Plymouth, . . . . .	1896	118 97	
Scituate, . . . . .	1900	993 52	
Wareham (1st), . . . . .	1901	2,256 08	
Wareham (2d), . . . . .	1901	2,109 53	
West Bridgewater, . . . . .	1900	4,796 77	
West Bridgewater, . . . . .	1901	2,571 75	35,529 63
<i>Suffolk County.</i>			
Chelsea, . . . . .	1901	\$8 48	
Revere, . . . . .	1899	161 42	
Revere (bridges), . . . . .	1899	32 60	202 50
<i>Worcester County.</i>			
Auburn, . . . . .	1901	\$2,040 77	
Barre, . . . . .	1899	119 39	
Barre, . . . . .	1900	4,571 64	
Barre, . . . . .	-	5 70	
Blackstone, . . . . .	1900	4,724 16	
Brookfield, . . . . .	1900	161 64	
<i>Amounts carried forward,</i>		\$11,623 30	\$351,606 82



CONSTRUCTION EXPENDITURES — *Concluded.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amounts brought forward,</i>		\$11,623 30	\$351,606 82
Charlton, . . . . .	1901	59 45	
Fitchburg, . . . . .	1900	1,454 51	
Fitchburg, . . . . .	1901	3,716 83	
Gardner, . . . . .	1897	227 56	
Gardner, . . . . .	1900	2,185 62	
Gardner, . . . . .	1901	5,132 25	
Hardwick, . . . . .	1901	4,167 02	
Harvard (1900 contract), . . . . .	1900	5,611 96	
Harvard (1901 contract), . . . . .	1900	2,859 66	
Holden, . . . . .	1900	396 78	
Leicester, . . . . .	1899	612 51	
Leominster, . . . . .	1901	358 72	
Lunenburg, . . . . .	1900	750 76	
Lunenburg, . . . . .	1901	3,438 17	
Millbury, . . . . .	1900	4,190 33	
Northborough, . . . . .	1900	4,390 06	
Princeton, . . . . .	1900	4,990 42	
Shrewsbury, . . . . .	1899	243 31	
Shrewsbury, . . . . .	1900	4,074 90	
Spencer, . . . . .	1899	594 11	
Spencer (1st), . . . . .	1900	1,746 38	
Spencer (2d), . . . . .	1900	7,211 88	
Sutton, . . . . .	1901	4,994 64	
Templeton, . . . . .	1901	2,698 01	
Uxbridge, . . . . .	1901	4,559 64	
Warren, . . . . .	1899	2 35	
Warren, . . . . .	1900	780 21	
Warren, . . . . .	1901	4,944 18	
West Brookfield, . . . . .	1900	22 57	
West Brookfield, . . . . .	1901	8,975 42	
Worcester, . . . . .	1900	5,206 10	
			102,219 61
Total, . . . . .			\$453,826 43

## REPAIR AND MAINTENANCE EXPENDITURES.

TOWN OR CITY.	Amount.	Totals.
<i>Barnstable County.</i>		
Barnstable, . . . . .	\$198 10	
Bourne, . . . . .	137 04	
Brewster, . . . . .	215 18	
Chatham, . . . . .	54 25	
<i>Amount carried forward,</i>	\$604 57	

REPAIR AND MAINTENANCE EXPENDITURES — *Continued.*

TOWN OR CITY.	Amount.	Totals.
<i>Amount brought forward,</i> . . . . .	\$604 57	
Dennis, . . . . .	387 80	
Harwich, . . . . .	101 64	
Provincetown, . . . . .	1 01	
Sandwich, . . . . .	117 46	
Truro, . . . . .	220 56	
Yarmouth (north), . . . . .	241 97	
Yarmouth (south), . . . . .	449 85	
Orleans, . . . . .	32 59	\$2,157 45.
<i>Berkshire County.</i>		
Adams, . . . . .	\$152 45	
Cheshire, . . . . .	151 53	
Dalton, . . . . .	608 11	
Great Barrington, . . . . .	671 03	
Hancock, . . . . .	596 76	
Lee, . . . . .	405 36	
Lenox, . . . . .	682 73	
North Adams, . . . . .	132 50	
Pittsfield, . . . . .	560 12	
Richmond, . . . . .	494 56	
Williamstown, . . . . .	163 78	
Windsor, . . . . .	1 33	4,620 26.
<i>Bristol County.</i>		
Acushnet, . . . . .	\$180 37	
Attleborough, . . . . .	4 69	
Dartmouth, . . . . .	73 03	
Easton, . . . . .	10 62	
Fairhaven, . . . . .	176 35	
North Attleborough, . . . . .	906 29	
Rehoboth, . . . . .	39 77	
Seekonk, . . . . .	2 65	
Somerset, . . . . .	146 97	
Taunton, . . . . .	59 55	
Westport, . . . . .	826 48	2,426 77
<i>Dukes County.</i>		
Cottage City, . . . . .	\$465 70	
Edgartown, . . . . .	62 92	
Tisbury, . . . . .	113 96	
West Tisbury, . . . . .	121 34	763 92
<i>Essex County.</i>		
Amesbury, . . . . .	\$137 61	
Andover, . . . . .	188 47	
Beverly, . . . . .	146 03	
Gloucester, . . . . .	294 84	
Hamilton, . . . . .	88 19	
<i>Amounts carried forward,</i> . . . . .	\$855 14	\$9,968 40.

REPAIR AND MAINTENANCE EXPENDITURES — *Continued.*

TOWN OR CITY.	Amount.	Totals.
<i>Amounts brought forward,</i>	\$855 14	\$9,968 40
Haverhill, . . . . .	16 53	
Lawrence, . . . . .	1,184 14	
Merrimac, . . . . .	166 34	
Methuen, . . . . .	143 72	
Newbury, . . . . .	45 56	
Newburyport, . . . . .	123 58	
North Andover, . . . . .	90 21	
Saugus, . . . . .	346 33	
Swampscott, . . . . .	61 14	
Wenham, . . . . .	50 86	
West Newbury, . . . . .	198 08	
<i>Franklin County.</i>		3,281 63
Ashfield, . . . . .	\$308 02	
Buckland, . . . . .	358 24	
Charlemont, . . . . .	180 21	
Colrain, . . . . .	150 93	
Deerfield, . . . . .	103 27	
Erving, . . . . .	143 97	
Greenfield, . . . . .	78 66	
Montague, . . . . .	13 62	
Orange, . . . . .	69 92	
Shelburne, . . . . .	52 65	
Sunderland, . . . . .	88	
Whately, . . . . .	12 04	
<i>Hampden County.</i>		1,467 41
Brimfield, . . . . .	\$127 30	
Chester, . . . . .	216 42	
Chicopee, . . . . .	497 79	
Monson, . . . . .	95 22	
Palmer, . . . . .	138 30	
Russell, . . . . .	938 83	
Westfield, . . . . .	355 23	
West Springfield, . . . . .	181 23	
Wilbraham, . . . . .	34 06	
<i>Hampshire County.</i>		2,584 38
Belchertown, . . . . .	\$3 11	
Easthampton, . . . . .	42 54	
Goshen, . . . . .	53 81	
Granby, . . . . .	55 06	
Hadley, . . . . .	317 67	
Huntington, . . . . .	412 32	
Northampton, . . . . .	42 96	
South Hadley, . . . . .	297 66	
Ware, . . . . .	80 73	
Williamsburg, . . . . .	80 48	
<i>Amount carried forward,</i>		1,386 34
		\$18,688 16

REPAIR AND MAINTENANCE EXPENDITURES — *Continued.*

TOWN OR CITY.	Amount.	Totals.
<i>Amount brought forward, . . . . .</i>		\$18,688 16
<i>Middlesex County.</i>		
Acton, . . . . .	\$58 60	
Ashby, . . . . .	72 96	
Bedford, . . . . .	25 29	
Boxborough, . . . . .	36 62	
Chelmsford, . . . . .	67 97	
Concord, . . . . .	57 13	
Lexington, . . . . .	125 93	
Lincoln, . . . . .	72 84	
Lowell (north), . . . . .	25 12	
Lowell (south), . . . . .	1,455 10	
Marlborough, . . . . .	126 51	
North Reading, . . . . .	4 72	
Reading, . . . . .	133 49	
Stoneham, . . . . .	38 70	
Sudbury, . . . . .	21 08	
Tewksbury, . . . . .	23 30	
Townsend, . . . . .	131 96	
Tyngsborough, . . . . .	95 51	
Watertown, . . . . .	214 14	
Wayland, . . . . .	196 02	
Weston, . . . . .	126 63	
Winchester, . . . . .	340 64	
		3,445 26
<i>Nantucket County.</i>		
Nantucket, . . . . .		237 90
<i>Norfolk County.</i>		
Braintree, . . . . .	\$2 14	
Cohasset, . . . . .	33 50	
Holbrook, . . . . .	35 98	
Milton, . . . . .	1,210 34	
Norfolk, . . . . .	33 91	
Norwood, . . . . .	173 83	
Quincy, . . . . .	22 41	
Walpole, . . . . .	275 29	
Westwood, . . . . .	75 28	
Weymouth, . . . . .	123 99	
Wrentham, . . . . .	148 97	
		2,135 64
<i>Plymouth County.</i>		
Abington, . . . . .	\$3 27	
Brockton, . . . . .	92 53	
Duxbury, . . . . .	128 40	
Hingham, . . . . .	117 51	
Marion, . . . . .	110 58	
Marshfield, . . . . .	120 98	
Mattapoisett, . . . . .	119 30	
<i>Amounts carried forward, . . . . .</i>	\$692 57	\$24,506 96

REPAIR AND MAINTENANCE EXPENDITURES — *Concluded.*

TOWN OR CITY.	Amount.	Totals.
<i>Amounts brought forward, . . . . .</i>	\$692 57	\$24,506 96
Middleborough, . . . . .	71 76	
Plymouth, . . . . .	546 05	
Scituate, . . . . .	179 44	
Wareham, . . . . .	26 48	
West Bridgewater, . . . . .	4 64	
Whitman, . . . . .	180 13	
		1,701 07
<i>Suffolk County.</i>		
Revere (east), . . . . .	\$139 64	
Revere (west), . . . . .	752 05	
		891 69
<i>Worcester County.</i>		
Athol, . . . . .	\$38 01	
Auburn, . . . . .	424 34	
Barre, . . . . .	28 00	
Blackstone, . . . . .	15 39	
Brookfield, . . . . .	165 16	
Fitchburg, . . . . .	81 60	
Gardner, . . . . .	189 96	
Grafton, . . . . .	236 05	
Hardwick, . . . . .	36 72	
Harvard, . . . . .	8 28	
Holden, . . . . .	261 37	
Leicester, . . . . .	379 16	
Lunenburg, . . . . .	225 62	
New Braintree, . . . . .	14 51	
Northborough, . . . . .	123 03	
Paxton, . . . . .	237 87	
Phillipston, . . . . .	91 82	
Princeton, . . . . .	4 64	
Shrewsbury, . . . . .	368 45	
Spencer, . . . . .	78 58	
Sterling, . . . . .	161 05	
Sturbridge, . . . . .	83 99	
Sutton, . . . . .	69 56	
Templeton, . . . . .	42 74	
Uxbridge, . . . . .	147 96	
Warren, . . . . .	150 29	
Westborough, . . . . .	13 99	
West Boylston, . . . . .	24 54	
West Brookfield, . . . . .	32 35	
Westminster, . . . . .	81 69	
Worcester, . . . . .	150 03	
		3,961 75
Total, . . . . .		\$31,061 47

Expended for repair and maintenance of steam road rollers, . . \$429 82

## EXPENDITURES UNDER "SMALL TOWN" ACTS.

[Under Chapter 432 of the Acts of 1900.]

Alford (two contracts), . . . . .	\$333 00
Avon, . . . . .	460 00
Blandford, . . . . .	900 00
Bolton, . . . . .	500 00
Carver, . . . . .	800 00
Danvers, . . . . .	3,000 00
Halifax, . . . . .	300 00
Hanson, . . . . .	1,200 00
Lanesborough, . . . . .	450 00
Lakeville, . . . . .	700 00
Maynard, . . . . .	750 00
Mendon, . . . . .	660 00
Middlefield, . . . . .	400 00
Monterey, . . . . .	300 00
Mount Washington, . . . . .	342 00
New Marlborough, . . . . .	600 00
Otis, . . . . .	400 00
Pembroke, . . . . .	864 00
Rochester (two contracts), . . . . .	3,000 00
Sheffield, . . . . .	1,000 00
Stow, . . . . .	448 00
Tolland, . . . . .	266 25
Topsfield, . . . . .	640 00
Westford, . . . . .	1,400 00
West Stockbridge (two contracts), . . . . .	1,090 00
	<hr/>
	\$20,803 25

[Under Chapter 433 of the Acts of 1901.]

Westford, . . . . .	966 30
	<hr/>
	\$21,769 55

## GENERAL OFFICE EXPENSES, DEC. 1, 1900, to DEC. 1, 1901.

[Under Acts of 1900, Chapter 141.]

Salaries of commissioners, . . . . .	\$500 01
Travel of commissioners, . . . . .	181 07
Salaries of clerical assistants and chief, first and second assistant engineers, . . . . .	1,246 67
Printing, including postal cards and stamped envelopes, . . . . .	35 35
Advertising hearings, . . . . .	7 39
Office supplies, . . . . .	55 70
Postage, . . . . .	5 12
	<hr/>
<i>Amount carried forward,</i> . . . . .	\$2,031 31

<i>Amount brought forward,</i>		\$2,081 31	
Examining titles,	15 00		
Expenses in Graves-Brown case, Swampscott,	8 00		
Miscellaneous items,	6 02		
			\$2,060 33

## [Under Acts of 1901, Chapter 541.]

Salaries of commissioners,	\$7,791 65		
Travel of commissioners,	1,609 95		
Salaries of clerical assistants and chief, first and second assistant engineers,	18,700 32		
Rent of offices,	3,760 42		
Printing, including postal cards and stamped envelopes,	1,292 08		
Advertising hearings,	.53 73		
Office supplies,	319 17		
Telephone, including tolls,	164 59		
Postage,	169 48		
Examining titles,	79 80		
Recording land takings and easements,	25 22		
Expenses in Isaac C. Wyman case, Swampscott,	115 25		
Expenses in H. B. Taylor case, Plymouth,	41 10		
Miscellaneous items, including telegraph and express charges, car fares and minor office expenses,	330 46		
		29,453 22	
			\$31,513 55

## SUMMARY OF EXPENDITURES.

For construction,	\$453,826 43	
For road repair and maintenance,	31,061 47	
For steam roller repair and maintenance,	429 82	
For construction under "small town" acts,	21,769 55	
For general office accounts,	31,513 55	
Total expenditures for year,	\$538,600 82	

W. E. McCLINTOCK.  
HAROLD PARKER.  
JOHN H. MANNING.





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## APPENDIX.

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## APPENDIX A.

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR CONTRACTED  
TIONS TO

[In the last column, the capital letters used have the following significance: A, trap; B, local E, limestone; F, gravel; G, gravel and four-inch macadam; H, screened gravel; K, clay and

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Abington, . . . .	1900, . . . .	Brockton line, . . . . .
2	Abington, . . . .	1901, . . . .	End of 1900 lay-out, . . . . .
3	Acton, . . . . .	1899-1900, . . . .	Concord line, <sup>1</sup> . . . . .
4	Acton, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
5	Acton (west), . . . .	1901, . . . . .	Boxborough line, . . . . .
6	Acushnet, . . . . .	1897, . . . . .	1,500 feet east of New Bedford line, . . . . .
7	Acushnet, . . . . .	1901, . . . . .	Long Plain village, . . . . .
8	Adams, . . . . .	1897, . . . . .	Cheshire line, . . . . .
9	Amesbury, . . . . .	1899, . . . . .	Merrimac line, . . . . .
10	Amesbury, . . . . .	1901, . . . . .	End of 1899 lay-out, . . . . .
11	Amherst, . . . . .	1901, . . . . .	Hadley line, . . . . .
12	Andover, . . . . .	1895-96, . . . . .	Lawrence line, . . . . .
13	Andover, . . . . .	1897-99-1900, . . . .	North Reading line, . . . . .
14	Ashby, . . . . .	1894-98-99, . . . .	Ashby post-office, . . . . .
15	Ashfield, . . . . .	1897-98, . . . . .	One mile north of Ashfield post-office, . . . . .
16	Athol, . . . . .	1895-96, . . . . .	Orange line, . . . . .
17	Attleborough, . . . . .	1900, . . . . .	North Attleborough line, . . . . .
18	Attleborough, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
19	Auburn, . . . . .	1895-97, . . . . .	Dunn's Mills, . . . . .
20	Auburn, . . . . .	1898-99, . . . . .	Worcester line, . . . . .
21	Auburn, . . . . .	1901, . . . . .	End of 1897 lay-out, . . . . .
22	Barnstable (north), . . . .	1899, . . . . .	Sandwich line, . . . . .
23	Barnstable (south), . . . .	1897, . . . . .	Yarmouth line, . . . . .
24	Barnstable (south), . . . .	1901, . . . . .	End of 1897 lay-out, . . . . .
25	Barre, . . . . .	1897-99-1900, . . . .	Bridge over Ware River, . . . . .
26	Bedford, . . . . .	1897, . . . . .	Lexington line, . . . . .
27	Belchertown, . . . . .	1900, . . . . .	Near depot, . . . . .

<sup>1</sup> Exclusive of 1,100 feet at railroad crossing.

## APPENDIX A.

FOR BY THE COMMISSION, AND THE NATURE OF THE SEVERAL CONSTRUCTION, JAN. 1, 1902.

field stone; C, local ledge other than trap; D, bottom course local field stone, top course trap; four-inch macadam; M, clay and screened gravel; N, unsurfaced.]

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Easterly, . .	.70	.58	50	15	3	B.	1
Easterly, . .	.48	.65	60	15	-	B.	2
Northerly, . .	2.78	2.78	50+	15	8	A-G.	3
North-westerly, .	.64	.53	50	15	-	A-G.	4
South-easterly, .	.72	.72	60	15	-	A.	5
Northerly, . .	.63	.63	50+	15	8	B.	6
To Rochester line,	1.77	1.77	40	15	-	B.	7
Northerly, . .	.57	.57	50	15	8	A.	8
Easterly, . .	.51	.38	50-60	15	8	B.	9
Easterly, . .	.43	.56	60-55	15	-	B.	10
Easterly, . .	.95	Partly graded.	50	15	-	A.	11
Southerly, . .	1.22	1.22	66	18	8	D.	12
Northerly, . .	1.85	1.85	60	15	8	O.	13
Southerly, . .	3.58	3.58	66-80	20-18-15	5-3	B.	14
Northerly, . .	1.61	1.61	50-70	-	-	H.	15
Easterly, . .	1.61	1.61	50	17	3	D-A.	16
South-westerly, .	1.00	1.00	66	15	3	F.	17
South-westerly, .	1.20	1.20	66	-	-	F.	18
Southerly, . .	1.93	1.93	50	15	3	'95 A, '96-7 B.	19
Southerly, . .	1.14	1.14	50+	15-18	3	A.	20
South-westerly, .	.98	.75	50+	-	-	N.	21
South-easterly, .	.95	.95	50	15	-	B.	22
Westerly, . .	.85	.85	40+	18-15	8	B.	23
Westerly, . .	1.41	1.41	40-82	15	-	B.	24
North-westerly, .	1.63	1.63	50-49.5	15	3	A.	25
North-westerly, .	.54	.54	50	15	8	B.	26
South-westerly, .	.66	.66	50	15	3	A-G.	27

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Belchertown, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
2	Beverly, . . . .	1895-97-98, . . . .	Wenham line, . . . .
3	Blackstone, . . . .	1899-1900, . . . .	Uxbridge line, . . . .
4	Bourne, . . . .	1897-98, . . . .	Cohasset Narrows, . . . .
5	Boxborough, . . . .	1897-99, . . . .	Acton line, . . . .
6	Braintree, . . . .	1900, . . . .	Quincy line, . . . .
7	Brewster, . . . .	1895-97, . . . .	Dennis line, . . . .
8	Brewster, . . . .	1901, . . . .	End of 1897 lay-out, . . . .
9	Brimfield, <sup>1</sup> . . . .	1897-99, . . . .	Monson line, . . . .
10	Brimfield, . . . .	1901, . . . .	Wales line, . . . .
11	Brockton, . . . .	1897-98-99, . . . .	Easton line, . . . .
12	Brockton, . . . .	1900, . . . .	Abington line, . . . .
13	Brookfield, . . . .	1897-98-1900, . . . .	Mill Street, . . . .
14	Buckland, . . . .	1894-1900, . . . .	Shelburne Falls station, . . . .
15	Charlemont, . . . .	1897-98-99, . . . .	Bridge over Deerfield River, . . . .
16	Charlton, . . . .	1901, . . . .	Charlton Depot village, . . . .
17	Chatham, . . . .	1899, . . . .	Depot Street, . . . .
18	Chatham, . . . .	1901, . . . .	End of 1899 lay-out, . . . .
19	Chelmsford, . . . .	1898-99, . . . .	Lowell line, . . . .
20	Chelmsford, . . . .	1901, . . . .	906 feet from the end of 1899 lay-out, . . . .
21	Chelsea, . . . .	1901, . . . .	Willoughby Street, . . . .
22	Cheshire, . . . .	1899-1900, . . . .	Farnham station, Boston & Albany Railroad, . . . .
23	Cheshire, . . . .	1901, . . . .	1,000 feet north of 1900 lay-out, . . . .
24	Chester, . . . .	1899-1900, . . . .	100 feet from Becket line, . . . .
25	Chester, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
26	Chicopee, . . . .	1897-99, . . . .	Springfield line, . . . .
27	Cohasset, . . . .	1897-99-1900, . . . .	Near Hingham line, . . . .
28	Colrain, . . . .	1898, . . . .	Shelburne line, . . . .
29	Colrain, . . . .	1901, . . . .	End of 1898 lay-out, . . . .
30	Concord, . . . .	1897-98, . . . .	Lincoln line, . . . .
31	Concord, . . . .	1900, . . . .	Acton line, . . . .
32	Cottage City, . . . .	1894-96, . . . .	Sengekontacket bridge, . . . .
33	Dalton, . . . .	1895-96, . . . .	Pittsfield line, . . . .
34	Dartmouth, . . . .	1898-99-1900, . . . .	Westport line, . . . .
35	Dartmouth, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
36	Deerfield, . . . .	1894-95, . . . .	South Deerfield station, . . . .

<sup>1</sup> Exclusive of 200 feet at bridge at Foskett's Mills.

CONTRACTED FOR BY THE COMMISSION, ETC.— *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
South-westerly, .	.60	-	50	15	-	A-G.	1
Southerly, . .	2.01	2.01	50-60	18	3	'95-7 A, '98 O.	2
South-easterly, .	1.17	1.17	49.5-50+	15	3	A-G.	3
Easterly, . .	1.42	1.42	45+	15	3	B-C.	4
Westerly, . .	1.36	1.36	60-50	15	4-3	B.	5
South-easterly, .	.46	.46	66	18	3	A.	6
Easterly, . .	2.49	2.49	40-50	15	3	B.	7
To Orleans line, .	5.30	5.30	50+	15	-	B.	8
Southerly, . .	2.34	2.34	60-60	-	-	'99 F, '97 H.	9
Northerly, . .	1.19	Partly graded.	50	-	-	N.	10
Easterly, . .	1.87	1.87	33	16	8.5	B.	11
Westerly, . .	.66	.66	50	15	3	B.	12
Easterly, . .	1.39	1.39	50	15	3	A.	13
Westerly, . .	3.49	3.49	30-50	24-18-15-12	3	A-C.	14
Easterly, . .	.77	.77	50-42+	15	3	D.	15
Southerly, . .	1.10	Partly graded.	50	15	-	B.	16
North-westerly, .	.59	.59	50	15-12	-	A.	17
North-westerly, .	.68	.68	50	15	-	A.	18
Westerly, . .	.93	.93	50	18	3	A.	19
North-westerly, .	.51	.50	50	15	-	A.	20
Southerly, . .	.58	.30	66	24	-	A.	21
North-easterly, .	1.42	1.42	50	15	-	G-A.	22
North-easterly, .	.46	-	50	-	-	N.	23
North-easterly, .	.66	.66	50	15	3	A.	24
Easterly, . .	.48	.48	40-50	15	-	A.	25
Northerly, . .	.92	.92	55-50-60	20	4-3	A.	26
Easterly, . .	1.73	1.73	50-50+	15	3	B-D.	27
Northerly, . .	1.08	1.08	40-50	-	-	H.	28
Northerly, . .	.75	.49	50+	-	-	H.	29
North-westerly, .	1.47	1.47	50	15	3	B.	30
South-westerly, .	.52	.52	50	15	3	G-A.	31
Northerly, . .	2.37	2.37	50	15	3	B.	32
Easterly, . .	1.56	1.56	30-60	15	7.5	A.	33
Easterly, . .	2.22	2.22	80	18	3	B.	34
Easterly, . .	.46	.46	80	18	-	B.	35
South-easterly, .	1.53	1.53	30	15	3	A.	36

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Deerfield, . . . .	1900, . . . .	Cheapside bridge, . . . .
2	Deerfield, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
3	Dennis, . . . .	1895-98, . . . .	Yarmouth line, . . . .
4	Dennis (south), . . . .	1900, . . . .	Bass River bridge, . . . .
5	Dennis (south), . . . .	1901, . . . .	End of 1900 lay-out, . . . .
6	Duxbury, . . . .	1894-95-97-99, . . . .	Marshfield line, . . . .
7	Easton, . . . .	1900, . . . .	Brockton line, . . . .
8	Easthampton, . . . .	1895-96, . . . .	Northampton line, . . . .
9	Easthampton, . . . .	1900, . . . .	Clark Street, . . . .
10	Easthampton, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
11	Edgartown, . . . .	1897-99-1900, . . . .	Sengekontacket bridge, . . . .
12	Edgartown, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
13	Erving, . . . .	1898-99-1900, . . . .	Town hall to Orange line, . . . .
14	Fairhaven, . . . .	1894-95, . . . .	Mattapoisett line, . . . .
15	Fitchburg, . . . .	1894-95, . . . .	Westminster line, . . . .
16	Fitchburg, . . . .	1897, . . . .	Lunenburg line, . . . .
17	Fitchburg, . . . .	1900, . . . .	Ashby line, . . . .
18	Fitchburg, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
19	Foxborough, . . . .	1901, . . . .	Mansfield line, . . . .
20	Gardner, . . . .	1897-98, . . . .	Templeton line, . . . .
21	Gardner, . . . .	1900, . . . .	Westminster line, . . . .
22	Gardner, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
23	Gloucester, . . . .	1894-95-98, . . . .	Manchester line, . . . .
24	Goshen, . . . .	1894-95, . . . .	Goshen village to Williamsburg line, . . . .
25	Grafton, . . . .	1897-99-1900, . . . .	Millbury line, . . . .
26	Granby, . . . .	1894, . . . .	South Hadley line, . . . .
27	Great Barrington, . . . .	1894-96-97, . . . .	Housatonic River, . . . .
28	Greenfield, . . . .	1899, . . . .	225 feet north-west of Boston & Maine bridge, near Deerfield line.
29	Greenfield, . . . .	1900, . . . .	500 feet from beginning of 1899 lay-out,
30	Groton, . . . .	1901, . . . .	Near Nashua River, . . . .
31	Groveland, . . . .	1900, . . . .	King Street, . . . .
32	Groveland, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
33	Hadley, . . . .	1894-98-99-1900, . . . .	Connecticut River bridge, . . . .
34	Hamilton, . . . .	1899-1900, . . . .	2 miles north from Wenham line, . . . .
35	Hancock, . . . .	1895-96-98-99, . . . .	Pittsfield line, . . . .
36	Hardwick, . . . .	1897, . . . .	New Braintree line, . . . .

CONTRACTED FOR BY THE COMMISSION, ETC.— *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
South-westerly, .	.44	.44	50	15	3	A.	1
Southerly, . .	.37	.37	50	15	-	A.	2
North-easterly, .	4.27	4.27	40-50-65	15	3	B.	3
Easterly, . .	1.00	1.00	40	15	3	A.	4
Easterly, . .	.31	.31	40-45	15	-	A.	5
Southerly, . .	2.05	2.05	30-40-50	15	3	A-B-C.	6
South-westerly, .	.80	.80	70	15	3	B-G.	7
South-westerly, .	1.32	1.32	40	15	3	A.	8
Southerly, . .	.79	.79	50	15	3	A.	9
Southerly, . .	.31	.31	49.5	15	3	A.	10
Southerly, . .	1.01	1.01	50	15	3	B.	11
South-easterly, .	.52	.52	50	15	-	B.	12
Easterly, . .	2.04	2.04	50-50+	-	-	F.	13
Westerly, . .	1.45	1.45	30	15	3	B.	14
Easterly, . .	.97	.97	50	15	3	A.	15
Westerly, . .	.61	.61	50	15-15	3	D.	16
Southerly, . .	.58	.58	50	15	3	B.	17
Southerly, . .	.49	.49	50	15	-	B.	18
Northerly, . .	.97	.84	50	15	-	B-G.	19
Easterly, . .	2.37	2.37	50+	15	-	A-G.	20
Westerly, . .	.62	.29	60	-	-	A.	21
North-westerly, .	.36	.31	60	15	-	A.	22
North-easterly, .	2.48	2.48	50	15	3	C-B.	23
South-easterly, .	1.91	1.91	50	15	3	B.	24
South-easterly, .	1.56	1.56	50	15	3	G-A-B.	25
North-easterly, .	.63	.63	35	15	3	A.	26
Easterly, . .	2.79	2.79	40-50-70	15-15	3	'94 A, '96-7 F.	27
North-westerly, .	.59	.59	49.5-50	15	-	A.	28
Easterly, . .	.40	.40	50	15	3	A.	29
South-easterly, .	.54	Partly graded. .56	50	15	-	A.	30
North-easterly, .	.56		50	15	3	A.	31
North-easterly, .	.21	-	50	15	-	A.	32
Easterly, . .	2.98	2.73	50-82.5-66+	15	3	A.	33
North-easterly, .	1.44	1.44	60-50	15	3	B.	34
Westerly, . .	3.23	3.23	50	-	-	F.	35
Northerly, . .	.39	.39	50	15	3	A.	36

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Hardwick, . . . .	1901, . . . .	End of 1897 lay-out, . . . .
2	Harvard, . . . .	1900, . . . .	Woodchuck hill, . . . .
3	Harwich, . . . .	1899-1900, . . . .	Dennis line, . . . .
4	Harwich, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
5	Hatfield, . . . .	1901, . . . .	Northampton line, . . . .
6	Haverhill, . . . .	1899, . . . .	West end of River Street, . . . .
7	Hingham, . . . .	1894, . . . .	Weymouth Back River, . . . .
8	Hingham, . . . .	1896-97, . . . .	Near Cohasset line, . . . .
9	Hinsdale, . . . .	1901, . . . .	Dalton line, . . . .
10	Holbrook, . . . .	1894-96, . . . .	Weymouth line, . . . .
11	Holden, . . . .	1894-97, . . . .	{ 1894-96, Holden village, . . . . 1897, end of 1894 lay-out, . . . .
12	Holden, . . . .	1898-1900, . . . .	Worcester line, . . . .
13	Huntington, . . . .	1895-96, . . . .	Russell line, . . . .
14	Lakeville, . . . .	1901, . . . .	½ mile from Middleborough line, . . . .
15	Lawrence, . . . .	1896, . . . .	Methuen line, . . . .
16	Lee, . . . .	1894-96, . . . .	Lee Park, . . . .
17	Lee, . . . .	1900, . . . .	Lenox line, . . . .
18	Leicester, . . . .	1894-95-96-98-99, . . . .	Worcester line, . . . .
19	Lenox, . . . .	1899-1900, . . . .	Lee line, . . . .
20	Lenox, . . . .	1901, . . . .	End of 1899 lay-out, . . . .
21	Leominster, . . . .	1901, . . . .	Near comb shop, . . . .
22	Lexington, . . . .	1895-98, . . . .	Massachusetts Avenue, . . . .
23	Lexington, . . . .	1900, . . . .	Bedford line, . . . .
24	Lincoln, . . . .	1895-97, . . . .	Concord line to Lexington line, . . . .
25	Lowell (Boulevard), . . . .	1897, . . . .	Tyngsborough line, . . . .
26	Lowell (Princeton Street), . . . .	1897-98, . . . .	Chelmsford line, . . . .
27	Lunenburg, . . . .	1898-99-1900, . . . .	Fitchburg line, . . . .
28	Lunenburg, . . . .	1901, . . . .	End of 1900 lay-out, . . . .
29	Lynn, . . . .	1899, . . . .	264 feet north of centre of channel of Saugus River and Revere line.
30	Mansfield, . . . .	1901, . . . .	Foxborough line, . . . .
31	Marion, . . . .	1894-95, . . . .	Marion village, . . . .
32	Marion, . . . .	1897-1899, . . . .	Marion village, . . . .
33	Marion, . . . .	1901, . . . .	End of 1899 lay-out, . . . .
34	Marion (Wareham), . . . .	1901, . . . .	End of 1895 lay-out, . . . .
35	Marlborough (east), . . . .	1897, . . . .	Sudbury line, . . . .
36	Marlborough (west), . . . .	1897-99-1900, . . . .	Northborough line, . . . .



CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
North-easterly, .	.43	.43	50	15	-	A.	1
Westerly, . .	.70	.66	60	15	-	B.	2
Easterly, . .	2.15	2.15	40+	15	-	A.	3
Easterly, . .	.38	.38	40	15	-	A.	4
North-easterly, .	.39	Partly graded.	50	15	-	A.	5
Westerly, . .	2.08	2.08	70	-	-	F.	6
Easterly, . .	1.42	1.42	34	-	-	F.	7
Westerly, . .	1.23	1.23	50-33+	15	3	D.	8
South-easterly, .	.40	-	50	-	-	-	9
Westerly, . .	1.11	1.11	50	15	3	B-C.	10
Northerly, { Southerly, }	2.70	2.70	30-49.5	18-15	3	B.	11
Northerly, . .	1.06	1.06	50	15	3-5	B.	12
Westerly, . .	1.01	1.01	50+	15	3	A.	13
South-westerly, .	1.97	.85	50	15	-	B.	14
Southerly, . .	.27	.27	50	18	7	C.	15
Easterly, . .	1.98	1.98	40-35-50	24-15	3	D.	16
Southerly, . .	1.26	1.26	50	15	3	D.	17
Westerly, . .	4.87	4.87	39-53-55-67+	24-18-16-15	3-5-5.5	'94-6 D, '98-9	18
Northerly, . .	1.21	1.21	56±	15	3	B. D.	19
Northerly, . .	1.07	1.07	60-66	15	3	D.	20
South-westerly, .	1.32	Partly graded.	50	-	-	F.	21
Westerly, . .	3.45	3.45	50-50+	15	3	B.	22
South-easterly, .	.85	.85	50	15	3	B.	23
South-easterly, .	2.07	2.07	50	15	3	B.	24
Easterly, . .	.97	.97	60	15	3	D.	25
Easterly, . .	1.34	1.34	50±	18	6	D.	26
Easterly, . .	1.45	1.45	50	15	3	D.	27
Easterly, . .	.40	.40	50	15	-	D.	28
North-easterly, .	.90	-	70	-	-	-	29
South-easterly, .	.72	Partly graded.	50	15	-	B-G.	30
North-easterly, .	1.48	1.48	40	15	3	B.	31
Westerly, . .	1.38	1.38	40-55	15	3	B.	32
South-westerly, .	.30	.35	50	15	-	B.	33
To Wareham line,	.10	Partly graded.	50-65	-	-	-	34
Westerly, . .	.40	.40	50-60	15	3	B.	35
Easterly, . .	1.71	1.71	50	15	5-4-3	B.	36

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Marlborough, . . .	1901, . . .	End of 1900 lay-out, . . .
2	Marshfield, . . .	1894-96-98-99, . . .	Duxbury line, . . .
3	Marshfield, . . .	1901, . . .	End of 1899 lay-out, . . .
4	Mattapoisett, . . .	1894-95, . . .	Fairhaven line, . . .
5	Mattapoisett, . . .	1900, . . .	Ned Point Light road, . . .
6	Mattapoisett, . . .	1901, . . .	End of 1900 lay-out, . . .
7	Merrimac, . . .	1897-98-99, . . .	Near Haverhill line, . . .
8	Merrimac, . . .	1901, . . .	Amesbury line, . . .
9	Methuen, . . .	1896-1900, . . .	Lawrence line, . . .
10	Methuen, . . .	1901, . . .	End of 1900 lay-out, . . .
11	Middleborough, . . .	1894-98, . . .	Nemasket River, . . .
12	Millbury, . . .	1900, . . .	Worcester line, . . .
13	Milton, . . .	1899-1900, . . .	Neponset River, . . .
14	Monson, . . .	1894, . . .	Railroad bridge, . . .
15	Monson, . . .	1901, . . .	Palmer line, . . .
16	Montague, . . .	1898-99, . . .	Junction pipe line and ferry road, East,
17	Nantucket, . . .	1894-95-96-97-98-99-1900, . . .	First mile-stone, . . .
18	Nantucket, . . .	1896, . . .	Seventh mile-stone, . . .
19	Nantucket, . . .	1901, . . .	End of 1900 lay-out, . . .
20	Natick, . . .	1901, . . .	Wellesley line, . . .
21	Needham, . . .	1901, . . .	Newton line, . . .
22	New Braintree, . . .	1897, . . .	Hardwick line to Ware line, . . .
23	Newbury, . . .	1899-1900, . . .	Newburyport line, . . .
24	Newbury, . . .	1901, . . .	End of 1900 lay-out, . . .
25	Newburyport, . . .	1896-98, . . .	West Newbury line, . . .
26	Newton, . . .	1901, . . .	Needham line, . . .
27	Norfolk, . . .	1895, . . .	Walpole line to Wrentham line, . . .
28	North Adams, . . .	1894-96-97, . . .	Williamstown line, . . .
29	North Adams, . . .	1900, . . .	Boston & Maine Railroad bridge at Davenport Street.
30	North Adams, . . .	1901, . . .	End of 1900 lay-out, . . .
31	Northfield, . . .	1901, . . .	Near Mill Brook, . . .
32	Northampton, . . .	1894, . . .	Hadley Bridge, . . .
33	Northampton, . . .	1897-99-1900, . . .	Easthampton line, . . .
34	Northampton, . . .	1898-99, . . .	South Street, and city macadam, . . .
35	North Andover, . . .	1900, . . .	Lawrence line, . . .
36	North Andover, . . .	1901, . . .	End of 1900 lay-out, . . .

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Easterly, . .	.70	.30	50-65	15	-	B.	1
Northerly, . .	2.00	2.00	30-40-45	15	8	B-C.	2
Northerly, . .	.41	.41	45	15	-	B-C.	3
Easterly, . .	1.16	1.16	30	15	8	B.	4
Easterly, . .	.81	.81	40	15	8	B.	5
Easterly, . .	.57	.50	50	15	-	B.	6
North-easterly, .	.92	.92	50+	15	4-8	B-C.	7
South-westerly, .	.64	.64	50	15	8	C.	8
North-easterly, .	1.67	1.67	50-50+	15	8	C-B.	9
North-easterly, .	.52	.49	50	15	-	C.	10
Southerly, . .	2.76	2.76	30-50	15	7.5-8	B.	11
Southerly, . .	.38	.38	50	15	8	A.	12
South-easterly, .	.87	.87	49.5-82.5	24	4	A.	13
Northerly, . .	.93	.93	38	15	8	A.	14
South-easterly, .	.10	.10	50	15	-	A.	15
North-westerly, .	1.63	1.63	60	15	8	A.	16
Easterly, . .	4.51	4.51	66	12-15	8	B-E-G.	17
Westerly, . .	.66	.66	66	15	8	B-G.	18
Easterly, . .	.71	.17	66	12	-	B-G.	19
Westerly, . .	1.14	1.14	60-70	15-18-20	-	A-G.	20
Westerly, . .	1.00	-	60-86	18-22	-	B.	21
Southerly, . .	.17	.17	50	15	8	A.	22
Southerly, . .	1.22	1.22	66-95	15	8	B.	23
Southerly, . .	.88	Partly graded.	66-80	15	-	B.	24
Easterly, . .	1.75	1.75	60-60+-75+	15	8	C.	25
North-easterly, .	1.03	1.03	45-86	22	-	A.	26
South-westerly, .	1.45	1.45	50	15	8	B.	27
Easterly, . .	1.69	1.69	30-66	15	8	D.	28
South-easterly, .	.54	.54	50	15	8	A.	29
Southerly, . .	.47	.47	50	15	-	A.	30
Southerly, . .	.63	-	70-160	15	-	B.	31
South-westerly, .	.56	.56	40	20	8	C.	32
Northerly, . .	.64	.64	50	15	8	A.	33
Southerly, . .	.48	.48	50	15	8	A.	34
South-easterly, .	.79	.79	66	15	8	D.	35
South-easterly, .	.57	-	60-66	15	-	A.	36

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	North Attleborough, . . .	1894-97-99, . . .	Bruce Avenue, . . . . .
2	Northborough (east), . . .	1897-98, . . . . .	Marlborough line, . . . . .
3	Northborough (south), . . .	1897, . . . . .	Westborough line, . . . . .
4	Northborough (west), . . .	1900, . . . . .	Shrewsbury line, . . . . .
5	North Reading, . . . . .	1897-98, . . . . .	Andover line, . . . . .
6	North Reading, . . . . .	1901, . . . . .	End of 1898 lay-out, . . . . .
7	Norwood, . . . . .	1895-96, . . . . .	Ellis station, . . . . .
8	Norwood, . . . . .	1897-99, . . . . .	Walpole line, . . . . .
9	Orange, . . . . .	1894-95-97, . . . . .	Athol line, . . . . .
10	Orange, . . . . .	1900, . . . . .	Erving line, . . . . .
11	Orange, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
12	Orleans, . . . . .	1900, . . . . .	Brewster line, . . . . .
13	Orleans, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
14	Palmer, . . . . .	1899-1900, . . . . .	Tenneyville, near Boston & Albany Railroad freight station.
15	Palmer, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
16	Paxton, . . . . .	1895-98, . . . . .	Worcester line, . . . . .
17	Phillipston, . . . . .	1897-98, . . . . .	Near Athol line, . . . . .
18	Pittsfield, . . . . .	1894-98, . . . . .	Hancock line, . . . . .
19	Pittsfield, . . . . .	1897, . . . . .	Dalton line, . . . . .
20	Pittsfield, . . . . .	1901, . . . . .	End of 1898 lay-out, . . . . .
21	Plymouth, . . . . .	1894-98, . . . . .	Beaver Dam Brook, . . . . .
22	Princeton, . . . . .	1897-1900, . . . . .	Princeton station, . . . . .
23	Provincetown, . . . . .	1901, . . . . .	Near Truro line, . . . . .
24	Quincy, . . . . .	1899, . . . . .	Near Weymouth Fore River bridge, . . . . .
25	Raynham, . . . . .	1901, . . . . .	Taunton line, . . . . .
26	Reading, . . . . .	1899-1900, . . . . .	Stoneham line, . . . . .
27	Rehoboth, . . . . .	1895-96-99, . . . . .	Seekonk line, . . . . .
28	Revere, . . . . .	1897-98, . . . . .	Boston line, . . . . .
29	Revere, . . . . .	1899, . . . . .	Saugus line, . . . . .
30	Richmond, . . . . .	1897-98-99, . . . . .	Boston & Albany Railroad station, . . . . .
31	Richmond, . . . . .	1901, . . . . .	End of 1899 lay-out, . . . . .
32	Russell, . . . . .	1894-96-97-98-99, . . . . .	Westfield line to Huntington line, . . . . .
33	Salem, . . . . .	1901, . . . . .	Swampscott line, . . . . .
34	Sandwich, . . . . .	1897-98-1900, . . . . .	Barnstable line, . . . . .
35	Saugus, . . . . .	1899, . . . . .	Fox Hill bridge to Revere line, . . . . .
36	Seituate, . . . . .	1894-95-1900, . . . . .	Gannett's Corners, . . . . .

CONTRACTED FOR BY THE COMMISSION, ETC.—*Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	•
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
South-westerly, .	3.60	3.60	36-66	24-18-16	8	'94-'96 B, '96-'97-'99 F.	1
South-westerly, .	1.33	1.33	66	16	4-3	B.	2
North-westerly, .	.42	.42	50	16	3	B.	3
Easterly, . . .	.42	.42	66	16	3	B.	4
Southerly, . . .	1.01	1.01	66	16	3	C.	5
Southerly, . . .	.75	.75	66	16	-	B.	6
Southerly, . . .	1.02	1.02	40-50-67	16	3	B.	7
Northerly, . . .	1.03	1.03	45-50-60	16	3	B.	8
Westerly, . . .	2.18	2.18	30-49.5	17	3-5	D-A.	9
Easterly, . . .	.42	.42	50	16	3	B.	10
Easterly, . . .	.41	.41	50	16	-	B.	11
North-easterly, .	.82	.82	50	16	3	B.	12
North-easterly, .	.42	-	50	-	-	-	13
South-easterly, .	1.58	1.58	50+	16	3	G-A.	14
Easterly, . . .	.98	.98	50+	16	3	G-A.	15
North-westerly, .	3.24	3.24	50-70	16	3-5	B.	16
Easterly, . . .	1.19	1.19	50	15-12	4-3	B.	17
Easterly, . . .	1.54	1.54	60-50-40	16	3	A.	18
Westerly, . . .	.76	.76	50	-	-	F.	19
North-easterly, .	.37	.33	60	16	-	A.	20
Southerly and northerly.	3.86	3.86	40-50-112	16	3	B.	21
Easterly, . . .	.99	.99	50	16	3	B.	22
Westerly, . . .	.22	.22	33	16	-	B.	23
North-westerly, .	.49	.50	63-66	32	-	A.	24
North-easterly, .	.61	-	40	16	-	A.	25
Northerly, . . .	1.07	1.07	66	15-13	3	B.	26
Easterly, . . .	1.89	1.89	60	16	3	B.	27
North-easterly, .	.58	.58	44-50	24	3	A.	28
South-westerly, .	.67	.67	71	22	2	A.	29
Northerly, . . .	1.36	1.36	66	-	-	F.	30
North-easterly, .	.24	.41	66	-	-	F.	31
North-westerly, .	6.66	6.66	50	16	3	'94-'95 A, '96-'97-'98-'99 F.	32
Northerly, . . .	.13	.13	60+	-	-	F.	33
Westerly, . . .	2.57	2.57	50	16	3	B.	34
Southerly, . . .	1.60	1.60	71±	22	2	A.	35
South-easterly, .	1.77	1.77	40-50-30	16	3	A-B-C.	36

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Shelburne, . . . .	1894-97, . . . .	Bridge Street, . . . . .
2	Seekonk, . . . .	1900, . . . .	Rehoboth line, . . . . .
3	Seekonk, . . . .	1901, . . . .	End of 1900 lay-out, . . . . .
4	Shrewsbury, . . . .	1895-98-99-1900, . . . .	Worcester line, . . . . .
5	Somerset, . . . .	1895-97-99-1900, . . . .	South Street, . . . . .
6	Somerset, . . . .	1901, . . . .	End of 1895 lay-out, . . . . .
7	South Hadley, . . . .	1895-97-98-99-1900, . . . .	Granby line, . . . . .
8	Spencer, . . . .	1897-1900, . . . .	Leicester line, . . . . .
9	Spencer, . . . .	1901, . . . .	End of 1900 lay-out, . . . . .
10	Sterling, . . . .	1897-98, . . . .	Near town hall, . . . . .
11	Stoneham, . . . .	1897-98, . . . .	South Street, . . . . .
12	Stoneham, . . . .	1900, . . . .	Reading line, . . . . .
13	Stoneham, . . . .	1901, . . . .	End of 1900 lay-out, . . . . .
14	Sturbridge, . . . .	1897, . . . .	Fisk Hill road, . . . . .
15	Sudbury, . . . .	1897-98-1900, . . . .	Marlborough line, . . . . .
16	Sudbury, . . . .	1901, . . . .	End of 1900 lay-out, . . . . .
17	Sudbury, . . . .	1901, . . . .	Wayland line, . . . . .
18	Sunderland, . . . .	1897, . . . .	Connecticut River bridge, . . . . .
19	Sutton, . . . .	1899, . . . .	Millbury line, . . . . .
20	Sutton, . . . .	1901, . . . .	End of 1899 lay-out, . . . . .
21	Swampscott, . . . .	1897, . . . .	Boston & Maine Railroad (Swampscott branch), . . . . .
22	Swampscott, . . . .	1900, . . . .	End of 1897 lay-out, . . . . .
23	Swampscott, . . . .	1901, . . . .	End of 1900 lay-out, . . . . .
24	Taunton, . . . .	1895-98-99-1900, . . . .	Near Highland Street, . . . . .
25	Taunton, . . . .	1901, . . . .	End of 1900 lay-out to Dighton line, . . . . .
26	Templeton, . . . .	1899, . . . .	Gardner line, . . . . .
27	Templeton, . . . .	1901, . . . .	End of 1899 lay-out, . . . . .
28	Tewksbury, <sup>1</sup> . . . .	1900, . . . .	Lowell line, . . . . .
29	Tewksbury, . . . .	1901, . . . .	End of 1900 lay-out, . . . . .
30	Tisbury, . . . .	1894, . . . .	Vineyard Haven village, . . . . .
31	Townsend, . . . .	1896-98-99-1900, . . . .	Townsend village, . . . . .
32	Townsend, . . . .	1901, . . . .	End of 1900 lay-out to Groton line, . . . . .
33	Truro, . . . .	1895, . . . .	Wellfleet line, . . . . .
34	Tyngsborough, . . . .	1895-96, . . . .	Tyngsborough bridge to Lowell line, . . . . .
35	Uxbridge, . . . .	1897-98, . . . .	Blackstone line, . . . . .

<sup>1</sup> Exclusive of 1,200 feet at railroad crossing.

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Fest.	Fest.	Fest.		
North-easterly, .	2.16	2.16	30-50	18-15	8	B-A.	1
Westerly, . .	.56	.56	60	15	8	B.	2
Westerly, . .	.51	.51	60	-	-	F.	3
North-easterly, .	3.90	3.90	50-66-66	18-15	5-4-3	B.	4
Southerly, . .	3.59	3.59	40-50-60	18-15	8	B.	5
North-easterly, .	.63	-	50+	15	-	B.	6
South-westerly, .	2.42	2.42	36-50	15	8	A.	7
Westerly, . .	1.29	1.29	50	15	4-3	B-D.	8
Westerly, . .	.31	.31	58-63	15	3	B-D.	9
South-westerly, .	1.29	1.29	50	15	3	A.	10
Northerly, . .	.57	.57	60-66	15	7.5	B.	11
Southerly, . .	.62	.62	66	15	-	B.	12
Southerly, . .	.39	.39	66	15	-	B-G.	13
North westerly, .	.58	.58	50	15	4-3	B.	14
Easterly, . .	1.50	1.50	50±-50-60	15	3	B.	15
Easterly, . .	1.47	1.47	50	15	3	B.	16
North-westerly, .	.75	-	50	15	-	B.	17
Easterly, . .	.19	.19	50	15	3	A.	18
Southerly, . .	.49	.49	50	15	-	B.	19
South-easterly, .	.51	.51	50	15	-	B.	20
North-easterly, .	1.03	1.03	60	-	-	F.	21
Westerly, . .	.39	.39	50-64	18-20	-	A.	22
Westerly, . .	.06	.06	50±	20	-	A.	23
Westerly, . .	2.74	2.74	40-66	15	3	B.	24
Westerly, . .	.20	.20	66	15	-	B.	25
North-westerly, .	.62	.62	50	15	-	G-A.	26
North-westerly, .	.38	.38	50	15	-	A-G.	27
South-easterly, .	.56	.56	50	15	3	A.	28
South-easterly, .	.55	.33	50	15	-	A.	29
South-westerly, .	1.93	1.93	50	15	3	B.	30
South-easterly, .	2.61	2.61	55-50-60	15	3	B-A.	31
Southerly, . .	.36	.36	60	-	-	F.	32
Northerly, . .	2.38	1.60	40	10-16 <sup>1</sup>	-	K-M.	33
South-easterly, .	2.95	2.95	60	15	3	A-D.	34
North-westerly, .	1.28	1.28	50	15	3-5	B.	35

<sup>1</sup> Beach stone, 15 feet; broken stone and clay, 10 feet.

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Uxbridge, . . . . .	1901, . . . . .	End of 1898 lay-out, . . . . .
2	Wales, . . . . .	1901, . . . . .	Brimfield line, . . . . .
3	Walpole (south), . . . . .	1894-95-97-1900, . . . . .	Norfolk line, . . . . .
4	Walpole (north), . . . . .	1897-98, . . . . .	Norwood line, . . . . .
5	Walpole (north), . . . . .	1900, . . . . .	150 feet from the end of 1898 lay-out, . . . . .
6	Ware, . . . . .	1897-99-1900, . . . . .	New Braintree line, . . . . .
7	Wareham, . . . . .	1896, . . . . .	Near Weweeantit bridge, . . . . .
8	Wareham, . . . . .	1898, . . . . .	Cohasset Narrows bridge, . . . . .
9	Wareham, . . . . .	1901, . . . . .	End of 1898 lay-out, . . . . .
10	Wareham, . . . . .	1901, . . . . .	Marion line, . . . . .
11	Warren, . . . . .	1896-98, . . . . .	West Warren, . . . . .
12	Warren, . . . . .	1899-1900, . . . . .	Warren village, . . . . .
13	Warren, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
14	Watertown, . . . . .	1895-96, . . . . .	Waltham line, . . . . .
15	Wayland, . . . . .	1897-1900, . . . . .	Weston line, <sup>1</sup> . . . . .
16	Wellesley, . . . . .	1901, . . . . .	Natick line, . . . . .
17	Wenham, . . . . .	1897, . . . . .	Beverly line, . . . . .
18	Wenham, . . . . .	1901, . . . . .	End of 1897 lay-out, . . . . .
19	Westborough, . . . . .	1897, . . . . .	Near insane hospital, . . . . .
20	West Boylston, . . . . .	1897-98, . . . . .	Worcester line, . . . . .
21	West Bridgewater, . . . . .	1900, . . . . .	Brockton line, . . . . .
22	West Bridgewater, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
23	West Brookfield (east), . . . . .	1899-1900, . . . . .	Brookfield line, . . . . .
24	West Brookfield (west), . . . . .	1899, . . . . .	Ware line, . . . . .
25	West Brookfield, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
26	Westfield, . . . . .	1894-96-98-99, . . . . .	West Springfield line, . . . . .
27	Westfield, . . . . .	1898-99-1900, . . . . .	End of town macadam, . . . . .
28	Westfield, . . . . .	1901, . . . . .	End of 1900 lay-out, . . . . .
29	Westminster, . . . . .	1894-95-96-97-98-99, . . . . .	Fitchburg line, . . . . .
30	West Newbury, . . . . .	1895-97, . . . . .	Newburyport line, . . . . .
31	Weston, . . . . .	1898-99, . . . . .	Near Waltham line, . . . . .
32	Westport, . . . . .	1894-95-97-98, . . . . .	Dartmouth line, . . . . .
33	West Springfield, . . . . .	1895-96, . . . . .	Top of Tapham hill, . . . . .
34	West Tisbury, . . . . .	1895-97, . . . . .	Tisbury line, . . . . .
35	Westwood, . . . . .	1899-1900, . . . . .	Norwood line to Dedham line, . . . . .

<sup>1</sup> Exclusive of 1,800 feet at Concord River and railroad crossing.



CONTRACTED FOR BY THE COMMISSION, ETC.— *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
North-westerly, .	.50	.46	50	15	-	A.	1
South-westerly, .	1.04	Graded.	50+	-	-	N.	2
Northerly, . .	2.60	2.60	50	15	3	O-B.	3
Southerly, . .	1.70	1.70	50	15	3	B.	4
Southerly, . .	.24	.24	50	15	3	B.	5
Southerly, . .	1.80	1.80	50	15	3	A.	6
Easterly, . .	.57	.57	50	15	3	B.	7
Westerly, . .	1.05	1.05	40+	15	3	B.	8
South-westerly, .	.77	.60	40	15	-	B.	9
To 1896 lay-out, .	.14	Graded.	50-60	15	-	B.	10
Easterly, . .	1.89	1.89	49.5-50	15	3-4	A.	11
Easterly, . .	.94	.94	49.5	15	3	G-A.	12
To West Brook- field line.	.47	.47	49.5	15	-	A.	13
Easterly, . .	.85	.85	38	27	3-4	A-B.	14
North-westerly, .	2.27	2.27	50	15	3	B.	15
Easterly, . .	1.18	1.18	52-60-70	15	-	A-G.	16
Northerly, . .	.60	.60	50	15-18	4-12	A.	17
North-easterly, .	.51	.51	50	15	-	A.	18
North-westerly, .	.71	.71	50	15	3	B.	19
Northerly, . .	1.55	1.55	50	15	3	'97H, '98A-H.	20
Southerly, . .	1.00	1.00	60	15	3	B.	21
Southerly, . .	.97	.97	50-60+-115	15	-	B.	22
North-westerly, .	.81	.81	50	15	-	A.	23
South-westerly, .	.15	.15	50	15	3	A.	24
North-westerly, .	.69	.69	50	15	-	D.	25
Westerly, . .	2.22	2.22	50	18-15	3	A.	26
Westerly, . .	1.87	1.87	50+	18-15	3	A.	27
Westerly, . .	.82	.82	50	15	-	B.	28
South-westerly, .	3.00	3.00	50-60	15	3	D-U.	29
Westerly, . .	2.22	2.22	50-110	15	3-4.5	A-D.	30
Westerly, . .	3.15	3.15	50	18	-	O-B.	31
Easterly, . .	4.25	4.25	66-80	18	3	O-B.	32
Easterly, . .	1.53	1.53	50-125	18	3	A.	33
South-westerly, .	2.84	2.84	50	15-12-10	3	B.	34
Northerly, . .	1.05	1.05	45-55-60	15	3	B.	35

TABLE SHOWING THE HIGHWAYS LAID OUT, CONSTRUCTED OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Weymouth, . . .	1894, . . .	Holbrook line, . . .
2	Weymouth, . . .	1895-97, . . .	Fore River to Back River, . . .
3	Whately, . . .	1899, . . .	Deerfield line, <sup>1</sup> . . .
4	Whately, . . .	1901, . . .	End of 1899 lay-out, . . .
5	Whitman, . . .	1894-96, . . .	Brockton line, . . .
6	Wilbraham, . . .	1895-97, . . .	Near Springfield line, . . .
7	Wilbraham, . . .	1901, . . .	End of 1897 lay-out, . . .
8	Wilbraham, . . .	1901, . . .	End of 1895 lay-out, . . .
9	Williamsburg, . . .	1896-98, . . .	Goshen line, . . .
10	Williamsburg, . . .	1901, . . .	End of 1898 lay-out, . . .
11	Williamstown, . . .	1895-96-98, . . .	North Adams line, . . .
12	Winchester, . . .	1899-1900, . . .	Arlington line to Woburn line, . . .
13	Windsor, . . .	1897, . . .	Cummington line, . . .
14	Woburn, . . .	1900, . . .	Winchester line, . . .
15	Woburn, . . .	1901, . . .	End of 1900 lay-out, . . .
16	Worcester, . . .	1896-97, . . .	Paxton line, . . .
17	Worcester, . . .	1897, . . .	Holden line, . . .
18	Worcester, . . .	1900, . . .	West Boylston line, . . .
19	Wrentham, . . .	1894-95-99-1900, . . .	Plainville, . . .
20	Wrentham, . . .	1897-98, . . .	Norfolk line, . . .
21	Wrentham, . . .	1901, . . .	End of 1900 lay-out, . . .
22	Yarmouth (north), . . .	1894-96, . . .	Barnstable line to Dennis line, . . .
23	Yarmouth (south), . . .	1895-97, . . .	Bass River to Barnstable line, . . .

<sup>1</sup> Exclusive of 375 feet at railroad crossing.

CONTRACTED FOR BY THE COMMISSION, ETC.— *Concluded.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Easterly, . .	.25	.25	50	15	3	B.	1
Westerly, . .	1.75	1.75	125-50	15-18	3	A-B-C.	2
South-westerly, .	.78	.79	50	12	3	A.	3
South-westerly, .	.50	.42	50	15	-	A.	4
Easterly, . .	1.70	1.70	45	18	4	B.	5
Easterly, . .	1.91	1.91	50-79	15	3	A.	6
South-westerly, .	.22	.22	50	15	-	A.	7
Easterly, . .	.65	Partly graded.	50	15	-	A.	8
South-easterly, .	1.72	1.66	50	98 graded. 15	3	B.	9
South-easterly, .	.39	Graded.	50		-	N.	10
Westerly, . .	1.92	1.92	50-60-70	15	3	D.	11
North-easterly, .	1.96	1.96	50	15-21-20	-	C.	12
Westerly, . .	.28	.28	50	-	-	F.	13
North-westerly, .	.93	.93	50	15	3	G-C.	14
North-westerly, .	.75	.50	40-50	15	-	G-C.	15
South-easterly, .	1.35	1.35	50	15	3	B.	16
Southerly, . .	.66	.66	50	15	3	B.	17
South-westerly, .	.54	.54	50	15	3	A.	18
Northerly, . .	3.27	3.27	26-34-50	15	3	B.	19
South-easterly, .	1.42	1.42	50	15	3	B.	20
Northerly, . .	.75	.75	50	15	-	B.	21
Easterly, . .	3.71	3.71	40-60	15	3	B.	22
Westerly, . .	5.10	5.10	40	15	3	B-C.	23

## APPENDIX B.

TABLE SHOWING TOWNS AND CITIES IN WHICH WORK HAS BEEN DONE DURING THE YEAR 1901, THE RESIDENT ENGINEERS ON SUCH WORK, TOGETHER WITH DATES OF BEGINNING AND ENDING.

TOWN OR CITY.	County.	Lay-out.	Resident Engineer.	Date of Contract.	Date of Beginning.	Date of Ending.
Abington,	Plymouth,	1900	Shaw, S.,	June 4, 1900,	1901. April 26,	1901. May 22.
Abington,	Plymouth,	1900	Everett, P. H.,	June 4, 1900,	April 11,	April 27.
Abington,	Plymouth,	1900	Everett, P. H.,	Sept. 27, 1900,	April 11,	April 27.
Abington,	Plymouth,	1901	Shaw, S.,	Sept. 27, 1900,	April 26,	May 22.
Abington,	Plymouth,	1901	Winslow, D. H.,	July 3, 1901,	July 16,	Aug. 7.
Abington,	Plymouth,	1901	Shaw, S.,	July 3, 1901,	Aug. 7,	Sept. 16.
Acton (west),	Middlesex,	1901	Everett, P. H.,	April 4, 1901,	May 27,	Aug. 29.
Acton (east),	Middlesex,	1901	Everett, P. H.,	June 13, 1901,	June 28,	Sept. 10.
Amesbury,	Essex,	1901	Adams, C. E.,	June 13, 1901,	June 28,	Nov. 1.
Amherst,	Hampshire,	1901	French, W. S.,	Oct. 24, 1901,	Nov. 6,	Dec. 11.
Attleborough,	Bristol,	1900	Shaw, S.,	Sept. 6, 1900,	April 17,	April 28.
Attleborough,	Bristol,	1901	Norton, C. H.,	Aug. 8, 1901,	Sept. 6,	Nov. 28.
Auburn,	Worcester,	1901	Lucy, A. E.,	Sept. 26, 1901,	Oct. 9,	Dec. 21.
Barnstable,	Barnstable,	1901	Holden, H. C.,	Aug. 22, 1901,	Oct. 5,	Dec. 26.
Barre,	Worcester,	1900	Packard, S. G.,	Oct. 25, 1900,	Jan. 1,	Jan. 19.
Barre,	Worcester,	1900	Farnham, A. B.,	Oct. 25, 1900,	April 17,	May 29.
Belchertown,	Hampshire,	1900	Farnham, A. B.,	Oct. 10, 1901,	June 3,	July 27.
Blackstone,	Worcester,	1900	Packard, S. G.,	Oct. 11, 1900,	April 3,	May 27.
Brewster (1),	Barnstable,	1901	Holden, H. C.,	Feb. 6, 1901,	Feb. 15,	July 31.



TABLE SHOWING TOWNS AND CITIES IN WHICH WORK HAS BEEN DONE, ETC. — Continued.

TOWN OR CITY.	County.	Lay-out.	Resident Engineer.	Date of Contract.	Date of Beginning.	Date of Ending.
Groveland,	Essex,	1900	Adams, C. E.,	Nov. 8, 1900,	1901.	1901.
Groveland,	Essex,	1901	Adams, C. E.,	Nov. 8, 1900,	May 2,	Aug. 10.
Hardwick,	Worcester,	1901	Farnham, A. B.,	Nov. 8, 1900,	Dec. 22,	Dec. 17.
Harvard,	Worcester,	1900	Phillips, H. D.,	April 11, 1901,	May 22,	July 27.
Harvard,	Worcester,	1900	Phillips, H. D.,	Nov. 22, 1900,	Jan. 1,	Feb. 20.
Harvard,	Worcester,	1900	Everett, P. H.,	Nov. 22, 1900,	April 9,	July 23.
Harwich,	Barnstable,	1901	Holden, H. C.,	Aug. 29, 1901,	Sept. 11,	Dec. 6.
Hatfield,	Hampshire,	1901	Packard, S. G.,	Oct. 18, 1900,	April 5,	June 24.
Haverhill,	Essex,	1899	Nichols, E. J.,	Oct. 3, 1901,	Nov. 8,	Dec. 6.
Lee,	Berkshire,	1900	Dadley, A. D.,	Dec. 16, 1900,	Jan. 1,	Sept. 6.
Lenox,	Berkshire,	1900	Dadley, A. D.,	Aug. 16, 1900,	May 9,	Sept. 26.
Leominster,	Worcester,	1901	Phillips, H. D.,	Aug. 3, 1900,	June 15,	Sept. 12.
Lexington,	Middlesex,	1901	Everett, P. H.,	Oct. 24, 1901,	Nov. 4,	Dec. 5.
Lunenburg,	Worcester,	1901	Phillips, H. D.,	Sept. 27, 1900,	May 22,	June 11.
Mansfield,	Bristol,	1901	Brine, L. R.,	Aug. 8, 1901,	Aug. 19,	Oct. 29.
Marion,	Plymouth,	1901	Howes, C. H.,	Nov. 21, 1901,	Nov. 27,	Dec. 21.
Marion (bridge),	Plymouth,	1901	Howes, C. H.,	May 9, 1901,	Aug. 14,	Oct. 10.
Marlborough,	Middlesex,	1901	Welton, C. A.,	April 26, 1901,	May 8,	Dec. 31.
Marlborough,	Middlesex,	1900	Welton, C. A.,	Sept. 6, 1900,	June 12,	June 25.
Marshfield,	Plymouth,	1901	Welton, C. A.,	June 18, 1901,	Aug. 5,	Dec. 4.
Mattapoisett,	Plymouth,	1901	Litchfield, S.,	Aug. 8, 1901,	Aug. 20,	Dec. 9.
Merrimac,	Essex,	1901	Howes, C. H.,	Sept. 5, 1901,	Sept. 30,	Dec. 19.
Methuen,	Essex,	1901	Adams, C. E.,	July 18, 1901,	Aug. 9,	Nov. 11.
Millbury,	Worcester,	1901	Brown, C. L.,	Aug. 22, 1901,	Sept. 18,	Nov. 14.
Millbury,	Worcester,	1900	Grimes, M. W.,	Nov. 8, 1900,	May 31,	June 29.
Milton,	Norfolk,	1900	Southworth, A. L.,	Nov. 8, 1900,	June 28,	Aug. 23.
Monson,	Hampden,	1901	Shaw, S.,	Oct. 4, 1900,	June 28,	Sept. 16.
			French, W. S.,	Sept. 5, 1901,	Sept. 20,	Nov. 18.

Montague,	Franklin,	1899	Gerry, L. L.,	May 16, 1901,	June 17,	Aug. 22.
Nantucket,	Nantucket,	1900	Farnham, A. B.,	Oct. 4, 1900,	Jan. 1,	Jan. 29.
Nantucket,	Nantucket,	1901	Gray, A. W.,	Sept. 12, 1901,	Nov. 4,	Dec. 31.
Natick,	Middlesex,	1901	Winslow, G. R.,	April 4, 1901,	May 7,	Sept. 17.
Newbury,	Essex,	1900	Adams, C. E.,	Oct. 4, 1900,	April 11,	June 24.
Newbury,	Essex,	1901	Adams, C. E.,	Sept. 26, 1901,	Oct. 31,	Dec. 27.
Newton,	Middlesex,	1901	-	July 18, 1901,	Aug. 24,	Oct. 24.
North Adams,	Berkshire,	1900	Southworth, A. L.,	Sept. 27, 1900,	May 1,	May 19.
North Adams,	Berkshire,	1901	Bradford, J. L.,	July 3, 1901,	July 9,	Aug. 30.
Northborough,	Worcester,	1900	Welton, C. A.,	Oct. 25, 1900,	April 16,	June 22.
North Reading,	Worcester,	1901	Gray, A. W.,	July 18, 1901,	July 29,	Oct. 21.
Orange,	Middlesex,	1900	Raymond, C. A.,	June 6, 1901,	July 19,	Aug. 23.
Orange,	Franklin,	1901	Gerry, L. L.,	June 6, 1901,	June 19,	Nov. 4.
Palmer (1),	Hampden,	1901	Warren, H. E.,	April 24, 1901,	May 7,	June 28.
Palmer (2),	Hampden,	1901	French, W. S.,	Sept. 5, 1901,	Sept. 20,	Nov. 18.
Pittsfield,	Berkshire,	1901	Farnham, A. B.,	July 18, 1901,	Sept. 5,	Nov. 30.
Princeton,	Worcester,	1900	Grimes, M. W.,	Dec. 13, 1900,	May 15,	Nov. 29.
Princeton,	Worcester,	1900	Southworth, A. L.,	Dec. 13, 1900,	June 28,	Aug. 1.
Provincetown,	Barnstable,	1901	Holden, H. C.,	May 23, 1901,	June 17,	July 15.
Reading,	Middlesex,	1900	Gray, A. W.,	Oct. 25, 1900,	April 28,	Aug. 13.
Richmond,	Berkshire,	1901	Brown, M. L.,	May 9, 1901,	Aug. 12,	Oct. 21.
Salem,	Essex,	1901	Wade, W. N.,	July 8, 1901,	Aug. 13,	Sept. 14.
Sandwich,	Barnstable,	1900	Dadley, A. D.,	Aug. 30, 1900,	Jan. 11,	Feb. 7.
Sandwich,	Barnstable,	1900	Dadley, A. D.,	Aug. 30, 1900,	Mar. 20,	May 8.
Sandwich,	Barnstable,	1900	Winslow, D. H.,	Aug. 30, 1900,	May 13,	May 20.
Seekonk,	Bristol,	1900	Grimes, M. W.,	Sept. 21, 1900,	April 5,	April 19.
Seekonk,	Bristol,	1900	Winslow, D. H.,	Sept. 21, 1900,	April 17,	May 27.
Seekonk,	Bristol,	1901	Winslow, D. H.,	Aug. 15, 1901,	Aug. 26,	Oct. 30.
Seekonk,	Bristol,	1901	Bagge, G. W.,	Aug. 15, 1901,	Nov. 21,	Dec. 2.
Shrewsbury,	Worcester,	1900	Welton, C. A.,	Sept. 27, 1900,	April 16,	June 27.
Somerset,	Bristol,	1901	Brown, G. R.,	Nov. 7, 1901,	Nov. 25,	Dec. 11.

TABLE SHOWING TOWNS AND CITIES IN WHICH WORK HAS BEEN DONE, ETC. — *Concluded.*

TOWN OR CITY.	County.	Lay-out.	Resident Engineer.	Date of Contract.	Date of Beginning.	Date of Ending.
Spencer (1),	Worcester,	1900	Warren, H. E.,	June 14, 1900,	1901. April 17,	1901. July 6.
Spencer (2),	Worcester,	1900	Warren, H. E.,	Sept. 18, 1900,	April 17,	July 20.
Stoneham,	Middlesex,	1900	Gray, A. W.,	Oct. 23, 1900,	April 23,	Aug. 13.
Stoneham,	Middlesex,	1901	Gray, A. W.,	May 23, 1901,	June 8,	Aug. 13.
Sudbury,	Middlesex,	1901	Lucy, A. E.,	May 2, 1901,	May 31,	Sept. 30.
Sutton,	Worcester,	1901	Southworth, A. L.,	July 11, 1901,	July 24,	Oct. 10.
Swampscott,	Essex,	1900	Wade, W. N.,	Dec. 6, 1900,	May 28,	Aug. 22.
Swampscott,	Essex,	1901	Wade, W. N.,	Dec. 6, 1900,	May 30,	Aug. 22.
Taunton,	Bristol,	1901	Bagge, G. W.,	Sept. 12, 1901,	Sept. 21,	Nov. 30.
Templeton,	Worcester,	1901	Raymond, C. A.,	Sept. 5, 1901,	Sept. 26,	Nov. 27.
Tewksbury,	Middlesex,	1901	Dadley, A. D.,	Oct. 3, 1901,	Oct. 9,	Dec. 7.
Townsend,	Middlesex,	1900	Phillips, H. D.,	Nov. 1, 1900,	May 6,	June 14.
Townsend,	Middlesex,	1901	Phillips, H. D.,	June 27, 1901,	July 10,	July 21.
Townsend,	Middlesex,	1901	Phillips, H. D.,	Oct. 8, 1901,	Oct. 9,	Oct. 29.
Truro,	Middlesex,	1895	Holden, H. C.,	July 11, 1901,	Oct. 16,	Dec. 31.
Uxbridge,	Barnstable,	1901	Brine, L. R.,	July 25, 1901,	Oct. 10,	Oct. 10.
Wales,	Worcester,	1901	Bradford, J. L.,	Oct. 10, 1901,	Oct. 22,	Dec. 31.
Wareham (bridge),	Plymouth,	1901	Hewes, C. H.,	Aug. 15, 1901,	Oct. 9,	Dec. 19.
Wareham,	Plymouth,	1901	Hewes, C. H.,	April 25, 1901,	May 26,	Dec. 31.
Warren,	Worcester,	1901	Warren, H. E.,	Aug. 1, 1901,	Aug. 8,	Nov. 26.
Wayland,	Middlesex,	1900	Winslow, G. R.,	June 7, 1900,	April 8,	May 18.
Wellesley,	Norfolk,	1901	Winslow, G. R.,	April 4, 1901,	May 7,	Sept. 17.
Wenham,	Essex,	1901	Brown, G. R.,	Aug. 8, 1901,	Sept. 9,	Nov. 14.
West Bridgewater,	Plymouth,	1900	Winslow, D. H.,	April 4, 1901,	April 17,	July 15.
West Bridgewater,	Plymouth,	1901	Wade, W. N.,	Aug. 8, 1901,	Sept. 17,	Dec. 4.
West Brookfield,	Worcester,	1901	Warren, H. E.,	June 27, 1901,	July 10,	Dec. 3.



Westfield,	.	.	.	.	.	1901	Farnham, A. B.,	July 18, 1901,	Aug. 5,	Oct. 5.
Whately,	.	.	.	.	.	1901	Packard, S. G.,	Sept. 5, 1901,	Sept. 23,	Nov. 28.
Wilbraham (1),	.	.	.	.	.	1901	Warren, H. E.,	Sept. 5, 1901,	June 10,	July 11.
Wilbraham (2),	.	.	.	.	.	1901	Warren, H. E.,	Mar. 21, 1901,	June 18,	Dec. 3.
Williamsburg,	.	.	.	.	.	1901	Packard, S. G.,	Oct. 31, 1901,	Nov. 18,	Dec. 3.
Woburn,	.	.	.	.	.	1900	Packard, S. G.,	April 24, 1901,	June 4,	Oct. 24.
Woburn,	.	.	.	.	.	1901	Shaw, S.,	Oct. 11, 1900,	Sept. 20,	Nov. 2.
Worcester,	.	.	.	.	.	1900	Shaw, S.,	Sept. 5, 1901,	Sept. 17,	Dec. 24.
Wrentham,	.	.	.	.	.	1901	Grimes, M. W.,	Oct. 11, 1900,	April 26,	June 29.
	.	.	.	.	.		Norton, C. H.,	July 11, 1901,	July 31,	Sept. 21.

## APPENDIX C.

## SHOWING CONTRACT PRICES ON

CITY OR TOWN.	Contract Number.	Contractor.	EXCAVATION.			MASONRY (PER CUBIC YARD).		
			All Kinds (Cubic Yard).	Borrow (Cubic Yard).	Ledge (Cubic Yard).	Rubble Laid Dry.	Rubble Laid in Cement.	Cement.
1 Abington, . .	551	Ferranti, Milano & Co.,	\$0 49	\$0 67	\$2 00	-	-	\$12 00
2 Acton (west), .	526	John A. Gaffey, . .	50	40	1 50	\$4 00	-	8 00
3 Acton (east), .	539	A. J. Wellington, . .	40	30	2 00	5 00	-	10 00
4 Acushnet, <sup>1</sup> . .	537	Town, . . . . .	-	-	-	-	-	-
5 Amesbury, . .	540	James E. Watkins, . .	35	50	1 50	2 75	-	4 80
6 Amherst, . .	607	W. N. Flynt Granite Co.,	50	60	3 00	-	-	-
7 Attleborough, .	568	A. J. Wellington, . .	50	40	3 00	6 00	-	12 00
8 Auburn, . .	589	Town, . . . . .	35	40	1 75	5 00	-	10 00
9 Barnstable, . .	577	Town, . . . . .	30	25	1 75	5 00	-	10 00
10 Belchertown, .	600	William Orlando, . .	55	-	2 00	6 00	-	11 00
11 Brewster, . .	521	Town, . . . . .	-	-	-	-	-	-
12 Brewster, . .	522	Town, . . . . .	-	-	-	-	-	-
13 Brimfield and Wales.	601	Nicholas White, . .	30	40	2 00	4 50	-	9 00
14 Charlton, . .	595	Ferranti & Maguire, .	35	50	1 50	5 00	-	10 00
15 Chatham, . .	559	Town, . . . . .	25	-	1 75	6 00	-	10 00
16 Chelmsford, . .	523	Fred E. Ellis, . . .	35	40	2 00	4 00	-	7 00
17 Chelsea, <sup>12</sup> . .	578	City, . . . . .	-	-	-	-	-	-
18 Cheshire, . .	602	John W. Polcaro, . .	38	48	1 25	-	\$10 00	15 00
19 Chester, . .	584	Myron R. Flisk, . .	50	50	3 00	6 00	-	10 00
20 Colrain, . .	596	Town, . . . . .	35	35	1 75	5 00	-	10 00
21 Dartmouth, . .	546	Town, . . . . .	40	40	1 75	5 00	-	10 00
22 Deerfield, . .	590	A. J. Wellington, . .	30	40	1 00	6 00	-	12 00
23 Dennis, . .	547	A. J. Wellington, . .	40	50	3 00	6 00	-	12 00
24 Edgartown, . .	541	Town, . . . . .	25	25	1 75	5 00	-	10 00
25 Fitchburg, . .	566	David H. Damon, . .	40	45	2 50	5 00	-	8 00

<sup>1</sup> Twenty-inch clay. <sup>3</sup> Lump sum, \$2,500. <sup>5</sup> Screened. <sup>7</sup> Eight-inch clay.  
<sup>2</sup> Twenty-inch iron. <sup>4</sup> Cobble-stone gutters. <sup>6</sup> Fifteen-inch clay. <sup>8</sup> Leaching basins.

## APPENDIX C.

## STATE ROADS DURING 1901.

Gravel (Cubic Yard).	Shaping (Square Yard).	BROKEN STONE.		PIPE CULVERTS (PER LINEAL FOOT).						Fencing (Lineal Foot).	Side Drains (Lineal Foot).	Bounds (Each).	Catch-basins (Each).	
		Local (Ton).	Trap (Ton).	CLAY.			IRON.							
				Twelve-inch.	Eighteen-inch.	Twenty-four-inch.	Twelve-inch.	Eighteen-inch.	Twenty-four-inch.					
\$0 85	\$0 03.5	\$1 69	-	-	-	-	-	-	-	\$0 30	\$0 33	\$4 00	-	1
50	02	-	\$1 90	\$0 70	-	\$1 05	\$2 80	-	-	20	-	1 50	-	2
60	03	-	1 90	80	-	-	2 00	-	-	25	40	1 50	-	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
50	02	1 46	-	-	\$1 00	-	-	-	-	14	35	1 20	-	5
65	03	-	2 05	-	-	-	-	-	-	-	{ 45/ 445 }	2 00	\$30 00	6
{ 60 \$1 10 }	-	-	-	70	1 20	90	-	-	-	25	-	2 00	30 00	7
60	-	-	-	60	-	-	1 50	-	-	18	40	1 50	-	8
65	02	-	2 10	70	740	-	-	-	-	20	50	1 50	{ Cost. Cost }	{ 9
-	03	-	2 00	-	-	-	-	\$2 50	-	25	-	2 00	-	10
-	-	1 85	-	-	-	-	-	-	-	-	-	-	-	11
-	-	1 60	-	-	-	-	-	-	-	-	-	-	-	12
-	-	-	-	60	95	1 78	-	1 86	\$1 90	22	-	2 25	-	13
-	02.5	1 45	\$1 20	60	1 25	3 00	1 60	2 50	4 00	25	40	2 00	-	14
50	02	-	2 10	740	-	-	-	-	-	17	50	1 50	-	15
-	03	-	1 85	60	745	{ 1050 675 }	1 75	11 40	-	25	40	1 50	25 00	16
-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
53	-	-	-	-	-	-	-	-	-	-	-	2 20	-	18
80	03	-	1 95	1 25	2 50	-	1 75	3 00	-	24	-	2 00	-	19
{ 50 \$1 20 }	02	-	-	60	-	2 10	1 50	-	-	17	40	1 75	Cost.	20
65	02	1 50	-	-	-	-	-	-	-	17	40	1 50	-	21
50	03	-	1 70	80	-	-	1 80	-	-	25	-	2 00	30 00	22
\$1 00	03	-	2 40	80	740	-	-	-	-	-	-	1 50	30 00	23
1 00	02	2 10	-	70	-	\$1 00	-	-	-	Cost.	50	1 50	-	24
50	02	1 62	-	55	-	-	-	-	-	22	25	1 50	30 00	25

<sup>9</sup> Unscreened broken stone for foundation.<sup>11</sup> Ten-inch iron.<sup>10</sup> Ten-inch clay.<sup>12</sup> Lump sum, \$12,400.<sup>13</sup> Loam for hardening sub-grade.

## SHOWING CONTRACT PRICES ON

	CITY OR TOWN.	Contract Number.	Contractor.	EXCAVATION.			MASONRY (PER CUBIC YARD).		
				All Kinds (Cubic Yard).	Borrow (Cubic Yard).	Ledge (Cubic Yard).	Rubble Laid Dry.	Rubble Laid in Cement.	Cement.
1	Foxborough,	603	Town, . . . . .	\$0 40	\$0 45	\$1 75	\$5 00	-	\$10 00
2	Gardner, . . . .	555	A. J. Wellington, . . .	50	50	3 00	5 00	-	12 00
3	Groton, . . . .	604	A. J. Wellington, . . .	40	50	2 00	6 00	-	15 00
4	Hardwick, . . . .	529	John S. Lane & Sons, . .	50	50	-	5 00	-	10 00
5	Harvard, . . . .	579	Ferranti & Maguire, . .	38	58	1 00	-	-	-
6	Hatfield, . . . .	597	A. J. Wellington, . . .	40	40	1 00	6 00	-	12 00
7	Lakeville, <sup>3</sup> . . .	593	Town, . . . . .	-	-	-	-	-	-
8	Leominster, . . .	608	Murphy & Gallagher, . .	35	-	2 00	5 00	-	10 00
9	Lunenburg, . . .	589	John J. Falvey, . . . .	50	60	2 00	6 00	-	20 00
10	Mansfield, . . .	612	Wm. H. Doran, . . . .	35	50	1 00	5 50	-	12 00
11	Marion, . . . .	544	Town, . . . . .	35	50	1 75	5 00	-	9 00
12	Marion and Ware-	533	New Bedford & Onset	-	-	-	-	-	-
13	ham, <sup>4</sup> Marlborough, . .	542	Street Railway Co. City, . . . . .	35	50	1 75	5 00	-	10 00
14	Marshfield, . . .	570	A. J. Wellington, . . .	50	50	2 00	5 00	\$7 00	12 00
15	Mattapoisett, . .	580	Town, . . . . .	40	40	1 75	5 00	-	10 00
16	Merrimac, . . . .	560	James E. Watkins, . . .	50	45	1 00	6 00	-	10 00
17	Methuen, . . . .	575	Fred E. Ellis, . . . .	45	45	2 00	6 50	-	12 00
18	Montague, . . . .	534	A. J. Wellington, . . .	-	-	-	-	-	-
19	Nantucket, . . . .	586	Rollin M. Allen, . . . .	30	75	-	6 00	\$6 50	10 00
20	Natick and Welles-	527	William H. Mague, . . .	35	50	2 00	5 00	-	12 00
21	Needham, <sup>10</sup> . . .	576	Town, . . . . .	-	-	-	-	-	-
22	Newbury, . . . .	591	Michael Cashman, . . .	40	-	2 00	5 00	-	8 00
23	Newton, <sup>11</sup> . . . .	561	City, . . . . .	-	-	-	-	-	-
24	North Adams, . .	552	John S. Lane & Son, . .	35	40	2 00	4 00	-	10 00
25	Northfield, . . .	592	A. J. Wellington, . . .	40	45	1 00	8 00	-	15 00
26	North Reading, . .	562	Edward Adams, . . . .	35	40	2 00	5 00	-	10 00
27	Orange and Erving,	538	John O'Gara, . . . .	30	-	2 00	4 00	-	8 00
28	Palmer, . . . .	530	W. N. Flynt Granite Co.,	45	45	-	5 00	-	10 00
29	Palmer and Mon-	585	W. N. Flynt Granite Co.,	45	45	3 00	5 00	-	10 00
30	son. Pittsfield, . .	563	Charles H. Hale, . . . .	40	50	2 00	6 00	-	10 00
31	Provincetown, <sup>14</sup> .	535	Town, . . . . .	-	-	-	-	-	-

<sup>1</sup> Eight-inch clay.<sup>3</sup> Lump sum, \$5,500.<sup>5</sup> Relaying.<sup>7</sup> Clay hardening.<sup>2</sup> Ten-inch clay.<sup>4</sup> Lump sum, \$7,000.<sup>6</sup> Fifteen-inch clay.<sup>8</sup> Concrete masonry.

STATE ROADS DURING 1901—*Continued.*

Gravel (Cubic Yard).	Shaping (Square Yard).	BROKEN STONE.		PIPE CULVERTS (PER LINEAL FOOT).						Fencing (Lineal Foot).	Side Drains (Lineal Foot).	Bounds (Each).	Catch-basins (Each).	
		Local (Ton).	Trap (Ton).	CLAY.			IRON.							
				Twelve-inch.	Eighteen-inch.	Twenty four-inch.	Twelve-inch.	Eighteen-inch.	Twenty four-inch.					
\$0 55	\$0 02	\$1 40	-	\$0 65	\$0 45	\$0 55	-	-	-	\$0 18	\$0 40	\$1 50	Cost.	1
-	08	-	\$1 90	80	-	-	-	-	-	30	50	2 00	\$25 00	2
1 00	03	-	1 75	80	-	-	\$2 00	-	\$4 00	30	50	2 00	30 00	3
-	08	-	1 70	70	1 20	-	2 00	-	-	-	45	1 50	25 00	4
-	02.5	1 61	-	-	-	-	-	-	-	-	-	-	-	5
-	08	-	1 75	-	\$0 20	2 50	2 00	3 00	4 00	25	-	2 00	30 00	6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
65	-	-	-	65	1 00	2 50	1 75	3 50	4 75	25	-	2 00	-	8
-	02	1 90	2 10	-	-	-	-	-	-	25	50	2 00	-	9
55	03	1 45	-	80	-	-	-	-	-	25	-	1 50	25 00	10
60	02	1 35	-	\$0 20	-	-	-	-	-	17	-	1 50	-	11
-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
85	02	1 55	-	65	-	-	Cost.	Cost.	-	17	40	1 50	Cost	13
-	03	1 70	-	{ 30 40 }	-	-	-	-	-	30	-	2 00	25 00	14
1 00	02	1 45	-	-	-	-	-	-	-	20	45	1 50	-	15
45	02.75	1 60	-	\$0 20	1 10	2 00	-	3 45	-	25	35	1 50	-	16
60	03	1 95	-	-	-	2 75	1 75	-	-	20	45	2 00	-	17
-	-	-	1 74	-	-	-	-	-	-	-	-	-	-	18
-	08	2 75	-	-	-	\$1 75	-	-	-	30	-	2 00	-	19
50	08	-	1 50	65	-	1 50	-	-	-	20	40	1 50	-	20
-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
50	03	1 40	-	75	-	-	1 50	-	-	25	30	1 50	25 00	22
-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
-	03	-	1 85	-	1 00	-	-	3 00	-	20	-	1 50	-	24
-	08	-	1 80	70	-	-	1 70	-	-	30	-	2 00	25 00	25
50	02	1 37	-	75	-	-	-	-	-	25	50	1 50	-	26
121 20	02.5	1 55	-	-	1 25	-	-	-	-	18	37	1 50	25 00	27
60	03	-	1 95	-	-	-	-	-	-	25	45	2 00	-	28
65	03	-	2 05	-	-	-	-	-	-	25	-	2 00	-	29
-	03	-	1 85	-	-	-	-	3 00	125 00	25	40	1 50	-	30
-	-	-	-	-	-	-	-	-	-	-	-	-	-	31

<sup>9</sup> Twenty-inch clay.<sup>10</sup> Lump sum, \$5,340.<sup>11</sup> Lump sum, \$6,000.<sup>12</sup> Screened.<sup>13</sup> Thirty-inch iron.<sup>14</sup> Lump sum, \$700.

## SHOWING CONTRACT PRICES ON

	CITY OR TOWN.	Contract Number.	Contractor.	EXCAVATION.			MASONRY (PER CUBIC YARD).		
				All Kinds (Cubic Yard).	Borrow (Cubic Yard).	Ledge (Cubic Yard).	Rubble Laid Dry.	Rubble Laid in Cement.	Cement.
1	Richmond, . .	545	Town, . . . .	\$0 40	\$0 40	\$1 75	\$5 00	-	\$10 00
2	Salem, . . .	553	A. J. Wellington, . .	40	-	-	-	-	15 00
3	Seekonk, . .	573	Town, . . . .	40	35	1 75	5 00	-	10 00
4	Somerset, . .	611	Town, . . . .	40	40	1 75	5 00	\$8 00	10 00
5	Stoneham, . .	536	Edward Adams, . .	50	60	2 00	5 00	-	10 00
6	Sudbury, . .	532	Nicholas White, . .	30	40	1 00	4 00	-	8 00
7	Sutton, . . .	556	Town, . . . .	40	45	1 75	5 00	-	10 00
8	Taunton, . .	587	Ferranti & Maguire, .	41	51	-	6 25	9 10	13 20
9	Templeton, .	581	A. J. Wellington, . .	40	50	3 00	8 00	10 00	12 00
10	Tewksbury, .	598	A. J. Wellington, . .	40	40	2 00	5 00	-	12 00
11	Townsend, . .	548	Richard A. Clink, . .	30	-	1 00	4 00	-	10 00
12	Townsend, . .	599	William H. Doran, . .	40	-	1 00	6 00	-	14 00
13	Truro, . . .	557	A. J. Wellington, . .	-	1 30	-	-	-	-
14	Uxbridge, . .	565	John S. Lane & Sons, .	35	40	2 00	5 00	-	10 00
15	Wareham, . .	574	Town, . . . .	25	-	1 75	6 00	-	12 00
16	Warren, . . .	567	John S. Lane & Sons, .	40	45	2 00	4 00	10 00	12 00
17	Wenham, . . .	571	Town, . . . .	40	40	1 75	5 00	-	10 00
18	West Bridgewater,	528	Ferranti, Milano & Co.,	41	-	1 00	4 00	-	10 00
19	West Bridgewater,	572	A. J. Wellington, . .	40	50	3 00	6 00	-	12 00
20	West Brookfield, .	549	John O'Gara, . . .	35	50	1 75	4 00	6 50	11 00
21	Westfield, . .	564	Town, . . . .	35	40	1 75	5 00	96 00	-
22	Whately, . . .	582	A. J. Wellington, . .	30	40	1 00	6 00	-	12 00
23	Wilbraham, . .	524	Amos D. Bridge, . .	35	40	-	6 00	-	12 00
24	Wilbraham, . .	610	Amos D. Bridge, . .	35	45	1 00	6 00	-	12 00
25	Williamsburg, .	531	Amos D. Bridge, . .	40	-	-	5 00	8 00	12 00
26	Williamsburg, <sup>12</sup>	550	American Bridge Co.,	-	-	-	-	-	-
27	Woburn, . . .	583	John A. Gaffey, . .	38	-	1 50	4 00	-	8 00
28	Wrentham, . .	558	Town, . . . .	40	40	1 75	5 00	-	9 00

<sup>1</sup> Screened.<sup>2</sup> Eight-inch clay.<sup>3</sup> Fifteen-inch clay.<sup>4</sup> Clay hardening.<sup>5</sup> Relaying fifteen-inch clay pipe.<sup>6</sup> Ten-inch clay.

STATE ROADS DURING 1901 — *Concluded.*

Gravel (Cubic Yard).	Shaping (Square Yard).	BROKEN STONE.		PIPE CULVERTS (PER LINEAL FOOT).						Fencing (Lineal Foot).	Side Drains (Lineal Foot).	Bounds (Each).	Catch-basins (Each).	
		Local (Ton).	Trap (Ton).	CLAY.			IRON.							
				Twelve-inch.	Eighteen-inch.	Twenty-four-inch.	Twelve-inch.	Eighteen-inch.	Twenty-four-inch.					
\$0 65 180	-	-	-	-	\$1 25	-	-	-	-	\$0 17	\$0 40	\$1 50	-	1
50	-	-	-	\$0 80	-	-	-	-	-	30	-	2 00	-	2
65	-	-	-	65	-	-	-	-	-	17	35	1 50	-	3
65 \$0 02	\$1 50	-	-	65	40	-	-	-	-	17	40	1 50	Cost.	4
75	03	1 40	-	-	-	-	-	-	-	25	35	2 00	-	5
45	02.5	1 50	-	60	1 13	-	\$1 45	\$2 65	-	21	-	2 00	-	6
1 00	02	1 20	-	65	-	-	Cost.	-	-	17	45	1 75	-	7
59	02.5	1 97	-	-	-	-	-	-	-	26	-	2 50	-	8
1 00	03	-	\$1 80	70	-	\$2 50	1 80	-	\$1 00	30	40	2 00	\$20 00	9
60	03	-	1 65	70	80	80	-	-	-	30	40	2 00	30 00	10
74	-	-	-	75	-	-	-	-	-	25	-	1 50	-	11
90	-	-	-	90	-	-	-	-	-	30	-	1 50	-	12
-	-	2 80	-	-	-	-	-	-	-	-	-	-	-	13
-	03	-	2 00	-	-	-	-	-	-	25	-	1 50	-	14
75	02	1 55	-	70	-	-	-	-	-	17	45	1 50	Cost.	15
-	03	-	1 95	80	1 25	-	1 75	-	4 00	20	-	1 50	25 00	16
65	02	-	1 85	60	-	80	71 10	82 25	-	17	40	1 50	25 00	17
-	03.5	1 45	-	70	-	1 90	-	-	-	24	-	3 00	25 00	18
50	03	1 50	-	40	1 20	81 00	-	-	-	30	50	2 00	-	19
60	03	1 55	1 80	-	1 50	-	1 50	3 00	4 00	18	37	2 00	-	20
50	02	1 35	-	-	-	-	-	-	101 75	17	40	1 50	-	21
-	03	-	1 80	-	-	2 50	-	-	4 00	30	-	2 00	-	22
-	03	-	2 25	1 00	-	-	2 00	-	-	-	-	1 50	-	23
-	03	-	1 85	75	-	-	2 00	-	-	25	-	1 50	-	24
-	-	-	-	-	-	2 50	-	-	-	25	50	1 75	111 00	25
-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
45	02	1 48	-	65	-	80	82 50	-	-	20	35	1 40	20 00	27
60	02	1 60	-	60	-	-	-	-	-	17	35	1 40	Cost.	28

<sup>7</sup> Ten-inch iron.<sup>8</sup> Sixteen-inch iron.<sup>9</sup> Concrete masonry.<sup>10</sup> Fourteen-inch iron.<sup>11</sup> Rip-rap.<sup>12</sup> Lump sum, \$1,150.

## APPENDIX D.

## STATEMENT OF CLAIMS AGAINST THE COMMISSION.

[AS REQUIRED BY CHAPTER 18, SECTION 5, OF THE REVISED LAWS.]

NAME.	Residence.	Nature of Claim.	Amount.	Remarks.
Bennett, J. O.,	Lynn, .	Damages caused by taking of land in Lynn, . . . . .	-	Settled in part.
Bigelow, O. J.,	Athol, .	Damages caused by taking of land in Athol, . . . . .	-	Award pending.
Crowell, T. H.,	Somerville, .	Damages caused by construction of State road in Chatham, . . . . .	-	Suit entered.
Dane, G. E. F., estate of,	Hamilton, .	Damages caused by taking of land in Hamilton, . . . . .	-	Suit entered.
Gookin, J. S.,	Revere, .	Damages caused by construction of State road in Revere, . . . . .	\$10 77 <sup>1</sup>	Award not yet accepted.
Gould, C. E.,	Leicester, .	Damages caused by construction of State road in Leicester, . . . . .	800 00	Suit entered.
Haviland, J. B.,	Ludlow, .	Bill for services in making surveys, . . . . .	948 74	Suit entered.
Hayes, M.,	Salem, .	Damages caused by taking of land in Salem, . . . . .	-	Award pending.
Massenet Yarn Mills,	Colrain, .	Damages caused by construction of State road in Colrain, . . . . .	-	Suit entered.
Moseley, S. E.,	Revere, .	Damages caused by construction of State road in Revere, . . . . .	33 65 <sup>1</sup>	Award not yet accepted.
Parker, O. H.,	Revere, .	Damages caused by construction of State road in Revere, . . . . .	4 16 <sup>1</sup>	Award not yet accepted.
Wilkins, M. A.,	Swampscott, .	Damages caused by construction of State road in Swampscott, . . . . .	5 00 <sup>1</sup>	Award not yet accepted.

<sup>1</sup> Amount awarded by commission.



## APPENDIX E.

## THE DISTRIBUTION OF STATE ROADS IN THE COMMONWEALTH.

For the information of the many interested in this question, the following is reprinted from the report of 1897 :—

The selection of roadways which shall be rebuilt as State roads at the expense of the Commonwealth is naturally the most difficult problem with which the commission has to deal. The nature of that problem will be more readily understood after an examination of the map of the State, which forms a part of this report, on which is laid down, in addition to county and town boundaries, the roadways which the commission has been petitioned to take, and those which it has up to this date actually accepted as State roads, nearly all of the latter having been actually constructed.

Under the provisions of the law the commissioners are not permitted to control the expenditure of the appropriation entirely by their own judgment. They are restricted to two provisions, the wisdom of which they do not at all criticise, but which should always be kept in mind in considering the results of their labors. The first of these is that "all constructions of State roads shall be fairly apportioned among the different counties," and in this they have been guided in the main by the relative miles of roadway existing in the several counties. The second is the restriction growing out of the use of the petition. It was obviously the intention of the Legislature to limit the initiative of the Highway Commission in planning for the location of State ways. As is well known, the commission cannot of its own motion accept or reject any route; it has to await the petitions of the municipalities or the county commissioners. The only manner in which it can effect any satisfactory grouping of these petitions, so that continuous routes may come from the constructive work, is by rejecting the petitions which may come to it, or by counselling with the authorities having the right to petition in advance of their formal requests.

In order to keep the State roads from having a total lack of ultimate purpose in their relations to each other in the distribution of the

Commonwealth, the commission has been compelled gradually, though not formally, to come to a state of mind as regards the selection of roads which are to be taken. In part, this rather undetermined project is indicated by the distribution of the routes which have been accepted, as is shown on the accompanying map.\* In part, though less distinctly, it is indicated by the direction of the petitions, the greater part of which have been submitted after more or less conference with the commission.

It appears to your commission that the time has now come when some statement, still necessarily tentative, shall be made which will set forth in a general way the views of the commission as to the policy to be followed by the Commonwealth in the construction of State roads. This statement is submitted in no sense as a hard-and-fast plan, but in order to set forth the direction in which the work of the commission is inevitably drifting; and we should hope that this statement may provoke criticism, and, if need be, modification of the action.

It seems, in the first place, clear that the most important of the many needs which are to be met by the construction of State roads is that which relates to the connection of centres of business in the Commonwealth with each other, in so far as the business relations demand this connection. Thus, where two towns have a large exchange of relations, the way lying through other towns which profit little by the traffic, there is good reason why the State should take charge of the main connecting way.

Closely related to this is the case of a considerable number of smaller, less populous towns, surrounding a large city or centre of dense population, with which they have intimate business relations. It furnishes the market for their products, and the profit to the producer as well as the cost to the consumers is largely determined by the cost of local transportation. Even where facilities for transportation by rail exist, there is still much use of the public highway whenever it is in reasonably good condition. It is in evidence before the commission that many articles of produce, especially perishable and delicate fruits, are preferably sent many miles to the city markets in farm wagons, where shipping by rail would be both quicker and cheaper, on account of the better condition in which they may be delivered.

In making its selection among numerous petitions, the commission has endeavored to keep in mind the great advantages arising from easy connections between large centres of population and the sur-

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\* See end of report.

rounding agricultural areas; for in so doing the demands of both urban and suburban populations are recognized, and their mutual interests promoted.

Another class of cases arises, in which one or more towns lie remote from the rail or water ways, losing opportunities of advancement on account of this hindrance. These conditions are in some cases so grave that the average cost during the year of transporting a ton of freight from a village otherwise well placed for manufacturing to the business centres of the Commonwealth is greater than would be incurred in transporting the same burden from the central portion of the Mississippi valley to the city of Boston. In these cases, also, the commission feel impelled to better the traffic conditions by improving the way.

In yet other but not numerous cases, portions of the State adjacent to this Commonwealth have their natural business centres in some of our cities or towns, but the people thus residing beyond the bounds of the Commonwealth are deterred from seeking access to its markets by the difficulties of the way. In such instances it seems desirable that good roads should be provided to the bounds of the Commonwealth.

The conditions above mentioned may be regarded as of a local character. There remains yet another of such interests of a general nature to be provided for. These will be met by so grouping the State roads that they will in the end afford continuous routes through the Commonwealth, which may serve the interests of pleasure travel or the occasional distant carriage which would be done by ordinary wagons where the roads were good. These extended ways, including in general those which relate to driving for a distance of more than fifteen miles, are of greater importance to the interests of the Commonwealth than might at first sight appear. A considerable part of the present and much of the prospective value of real estate in the Commonwealth, as well as the traffic which takes place therein, is due to the incoming of people from the central and western parts of the country, who seek summer residences and family homes in the very attractive rural districts of the State. People who thus resort to the Commonwealth for recreation desire opportunities for driving such as would be afforded by a well regulated system of State ways, which would be laid out and beautified with some reference to the natural and historic interests of the country. It is hardly necessary to say that the use of the bicycle for pleasure travel would also be thus accommodated.

Although the commissioners do not propose to build roads which relate only or even mainly to pleasure travel, they feel that the ser-

vice which can be done by a system which relates to such travel is so great and of such economic importance to the Commonwealth that it should always be kept in mind.

An examination of the map referred to above will reveal in some degree the groupings of highways up to this time, as indicated by petitions and by acceptance. A few rather long, continuous lines of State highway are apparently demanded at the present time, and their construction ought to be kept in view in the acceptance of petitions; but the commission must not allow itself to be too much influenced by an adjustment of petitions, which often stand only for local interest and activity. While there is often good reason for accepting one highway on account of local conditions, although it may not form a part of any general scheme, and another because it does fit into such a scheme, although of less local value than another which may be near by, there is often equally good reason for postponing action on a third because it is relatively of less *immediate* importance than either of the others.

The commissioners are of the opinion that nearly every mile of road thus far petitioned for should some time be built as a State highway; but it is clear that, as only a comparatively small number of miles can be completed annually, some selection must be made.

In choosing which shall be undertaken first, the commissioners must be governed by considerations of the broadest character, many of which will not be evident to those who necessarily think most of local interests. The order of presentation of petitions can have no influence, nor should it be inferred that, because a petition is not granted this year, it may not be next, or the year after. Outside of the limitations put upon them by the statute, the commissioners are bound to exercise their best judgment in all cases; and, while they are likely to be far from infallible, and welcome fair criticism, all who are unselfishly interested in the extension of this important system of State highway construction are likely to accept the judgment as the result of a comprehensive knowledge of the whole situation, growing out of the necessary consideration of the scheme as a whole.

## APPENDIX F.

LAWS RELATING TO THE WORK OF THE  
COMMISSION.

[REVISED LAWS, CHAPTER 47.]

## OF STATE HIGHWAYS.

SECTION 1. There shall be a Massachusetts highway commission consisting of three persons, one of whom shall be annually appointed by the governor, with the advice and consent of the council, for a term of three years. The chairman shall be designated by the governor and shall receive an annual salary of thirty-five hundred dollars. Each of the other members shall receive an annual salary of twenty-five hundred dollars. Each member of the commission shall be allowed his travelling expenses, and shall devote his time to the business of the commission. The commission may expend annually for a secretary, clerk hire, engineers and for incidental expenses such amount as the general court may appropriate. It shall be provided with an office in the state house or some other suitable place in the city of Boston, in which the records of its office, maps, plans and statistics collected and compiled under its direction shall be kept.

Massachusetts  
highway com-  
mission.  
1893, 476, §§ 1, 3.  
1898, 528.  
1900, 474, § 1.

SECTION 2. It shall compile statistics relative to the public ways of counties, cities and towns, and make such investigations relative thereto as it shall consider expedient. It may be consulted by, and shall, without charge, advise officers of counties, cities or towns having the care of and authority over public ways, as to their construction, maintenance, alteration or repair; but such advice shall not impair the legal duties and obligations of any county, city or town. It shall prepare maps of the commonwealth on which shall be shown county, city and town boundaries, the public ways and the state highways, with

Duties, etc.  
1893, 476, § 2.

their names if practicable. It shall collect and collate information relative to the geological formation of the commonwealth so far as it relates to the materials suitable for road building, the location of which it shall, so far as practicable, designate on said maps, which shall be open to the inspection of officers of counties, cities and towns having the care of and authority over public ways. It shall give public notice of and hold at least one public meeting annually in each county for the open discussion of questions relative to public ways.

Annual report,  
etc.  
1893, 476, §§ 3, 5.

SECTION 3. It shall make an annual report to the general court of its doings and the expenditures of its office, with such statements relative to the construction and maintenance of public ways, such recommendations as to the general policy of the commonwealth relative thereto as it considers appropriate, and an estimate of the amount necessary to carry out the provisions of this chapter for the year beginning with the first day of March following. The report shall be transmitted to the secretary of the commonwealth on or before the first Wednesday in January.

Officers to furnish commissioners with information.  
1893, 476, § 4.

SECTION 4. County commissioners and city and town officers who have the care of and authority over public ways and bridges shall, on request, furnish the commission with any information required by it concerning such ways and bridges.

Petition for state highway.  
1893, 476, § 6.  
1894, 497, § 1.  
1898, 476.  
173 Mass. 403.  
[1 Op. A. G. 537.]

SECTION 5. If the county commissioners of a county, the mayor and aldermen of a city or the selectmen of a town adjudge that the public necessity and convenience require that the commonwealth take charge of a new or an existing way as a highway, in whole or in part, in their county, city or town, they may apply by a petition in writing to the commission, requesting that said way be taken charge of by the commonwealth.

Location of state highway.  
1893, 476, § 6.  
1894, 497, § 2.  
1896, 345, § 3.  
1897, 355, § 1.  
[1 Op. A. G. 264.]

SECTION 6. If said commission determines that public necessity and convenience require that such way should be laid out or be taken charge of by the commonwealth, it shall file a certified copy of a plan thereof, a copy of the petition therefor and a certificate that they have laid out and taken charge of said highway in accordance with said plan, in the office of the county commissioners for

the county in which the way is situated, and shall file a copy of the plan and location of the portion lying in each city or town in the office of the clerk of said city or town, and thereafter it shall be a state highway, and shall be constructed and kept in good repair and condition by the commission, at the expense of the commonwealth.

SECTION 7. Said commission may, with the concurrence of the mayor and aldermen of a city or the selectmen of a town, alter the location of a state highway in such city or town by filing a plan thereof and a certificate that said commission has laid out and taken charge of said state highway, as altered in accordance with said plan, in the office of the county commissioners for the county in which said highway is situated, and by filing a copy of the plan or location as altered in the office of the clerk of such city or town.

Alteration of  
location.  
1900, 475, § 1.

SECTION 8. Said commission may, with the concurrence of the mayor and aldermen of a city or the selectmen of a town, abandon any land or part thereof, or rights in land which have been taken or acquired by it in such city or town by executing, acknowledging and recording a deed thereof accompanied by a plan of survey which shall be recorded therewith. Said abandonment shall revert the title to the land or rights abandoned in the persons, their heirs and assigns, in whom it was vested at the time of the taking, and may be pleaded in reduction of damages in any suit therefor on account of such taking.

Abandonment  
of location.  
1900, 475, § 2.

SECTION 9. The damages sustained by any person whose property has been taken for or has been injured by the construction or alteration of such highway shall be determined by said commission and shall be paid by the commonwealth. A person who is aggrieved by such determination may, upon a petition filed in the superior court for the county in which the land lies within one year after the completion of said highway or alteration thereof, have said damages determined by a jury in the same manner as damages which have been sustained by the taking of land for other highways. The mayor of a city, if so authorized by a vote of the board of aldermen, or the selectmen of a town, if so authorized by a vote of the town, may stipulate in writing in behalf of the city or

Damages.  
1894, 497, § 3.  
1900, 475, § 1.  
1901, 345.  
172 Mass. 223.

town to indemnify and save harmless the commonwealth against all claims and demands for damages which may be sustained by any person whose property has been taken for, or has been injured by the construction of, any highway which the Massachusetts highway commission proposes to lay out and construct as a state highway, and thereupon such town or city shall be liable ultimately for the amount of any verdict against the commonwealth for such damages, and for costs, the amount thereof to be recoverable by the commonwealth in an action of contract.

Construction of  
state highways  
by cities and  
towns.  
1893, 476, §§ 9,  
10.  
1894, 497, § 4.  
1897, 355, § 2.  
1900, 404.  
[1 Op. A. G.  
370, 397.]

SECTION 10. Said commission shall, when about to construct a highway, give to each city and town in which it lies a certified copy of the plans and specifications therefor and a notice that said commission is ready for its construction; and said city or town may, without advertisement, contract with said commission for the construction of so much of such highway as lies within its limits, in accordance with the plans and specifications and under its supervision and subject to its approval, at a price agreed upon between said commission and said city or town. If, within ten days, said city or town does not elect so to contract, said commission shall advertise in two or more newspapers published in each county in which the highway lies, and in three or more daily newspapers published in Boston, for sealed proposals for the construction of such highway, stating the time and place for opening said proposals, and reserving the right to reject any and all proposals. Said commission may reject any and all proposals or, if a proposal is satisfactory, it shall, with the approval of the governor and council, make a contract in writing on behalf of the commonwealth for such construction. After they have been accepted or rejected they shall be kept by the commission; and shall be open to public inspection. The commission may, in the same manner and under the same conditions, contract with a city or town or, if a city or town shall not elect so to contract, with a person for the grading of a state highway or for furnishing materials or any other element in its construction. The construction of all state highways shall



be under the supervision and subject to the approval of the commission and in accordance with plans and specifications furnished by it, shall be fairly apportioned by the commission among the different counties, and not more than ten miles of state highway shall be constructed, on petition as aforesaid, in any one county in any one year, without the previous written approval of the governor and council.

SECTION 11. Said commission shall keep all state highways reasonably clear of brush, shall cause suitable shade trees to be planted thereon if practicable, and may establish and maintain watering troughs upon said highways. No opening shall be made in any such highway nor shall any structure be placed thereon, nor shall any structure which has been placed thereon be changed or renewed, except in accordance with a permit from the commission, which shall exercise complete and permanent control over such highways.

Maintenance of  
state highways.  
1894, 497, §§ 2, 7.  
1897, 355, § 1.

SECTION 12. One-fourth of any money which may be expended under the provisions of the seven preceding sections for a highway in any county, with interest thereon at the rate of three per cent per annum, shall be repaid by said county to the commonwealth in such instalments and at such times within six years thereafter as said commission, with the approval of the auditor of accounts, having regard to the financial condition of the county, shall determine. The treasurer and receiver general shall apply the money so repaid to the appropriation to be expended by said commission.

Reimbursement  
of common-  
wealth.  
1894, 497, § 5.

SECTION 13. The commonwealth shall be liable for injuries sustained by persons while travelling on state highways, in the manner and subject to the limitations, conditions and restrictions provided in sections eighteen, twenty and twenty-one of chapter fifty-one, except that notice of the injury shall be given to a member of the commission or to its secretary. The commonwealth shall not be liable for an injury which may be sustained upon the sidewalk of a state highway or during the construction of such highway. The amount which may be recovered for any such injury shall not exceed one-fifth of one per

Commonwealth  
primarily liable  
for defective  
highways.  
1888, 476, § 13.  
1894, 497, § 6.  
1896, 345, § 1.  
1900, 253, §§ 1, 2.  
[1 Op A. G.  
284.]

cent of the state valuation last preceding the commencement of the action of the city or town in which the injury was received, nor shall it exceed four thousand dollars.

State highway  
to be kept clear  
of snow and ice.  
1893, 476, § 14.  
1894, 497, § 6.  
1896, 345, § 2.  
1900, 253, § 2.

SECTION 14. A city or town in which a state highway lies shall at its own expense keep such highway sufficiently clear of snow and ice to be reasonably safe for travel. It shall have police jurisdiction over all state highways within its limits, and shall forthwith give notice in writing to the commission or its employees of any defect or want of repair in such highways; but it may make temporary necessary repairs of a state highway without the approval of the commission.

Maintenance  
and repair of  
state highways.  
1898, 476, § 10.

SECTION 15. Said commission shall contract with the city or town in which such state highway lies or with a private person for the maintenance or repair thereof in accordance with the regulations of said commission, and subject to their supervision and approval. Such contracts may be made without previous advertisement.

Expense of re-  
pairs, payment,  
and reimburse-  
ment of.  
1900, 432, § 1.

SECTION 16. Said commission shall annually, in January, certify to the treasurer and receiver general the amount of the expenditures for repair of state highways in each city and town during the preceding year. The amount of such expenditures, not exceeding fifty dollars a mile, shall be made a part of the state tax for such cities and towns respectively, and be credited to the appropriation for state highways to be used again by the commission. If a city or town elects to make such repairs upon terms and prices agreed upon by it and said commission and under the direction of said commission, the commission shall repay to it, from the annual appropriation for state highways, the amount expended therefor in excess of fifty dollars a mile.

Repair of ways  
in towns having  
no state high-  
way.  
1900, 432, § 2.  
1901, 433.

SECTION 17. The commission shall expend in such towns, the valuation of which does not exceed one million dollars and in which no state highway has been built, and in such amounts, as it determines, five per cent of the amount appropriated each year for the construction and repair of state highways, in constructing and repairing ways in such towns. It may also expend a further amount of not more than five per cent of said appropriation in towns the valuation of which exceeds one million

dollars in such amounts as it determines, if such towns appropriate, to be expended under the provisions of this and the preceding section, an amount, in addition to the average annual appropriations for repairs of highways in such town for the preceding five years, equal to the amount allotted by said commission. Such allotments and expenditures shall be made only upon the petition of the selectmen of the towns, and a way constructed or repaired under the provisions of this section shall not thereby become a state highway. No town shall so receive in any one year more than forty per cent of its average annual appropriations for highway purposes for the preceding five years.

SECTION 18. Said commission shall construct and maintain such portion of a state highway as lies between the lines of the sidewalks nearest to the centre of the way. The sidewalks of said way may be constructed and maintained in accordance with the provisions of sections forty-two and forty-three of chapter forty-nine.

Construction of  
state highways.  
1896, 345, § 1.

SECTION 19. Steam road rollers and other road machinery owned by the commonwealth shall be managed and maintained under the direction of said commission, which may engage competent engineers and mechanics to operate and keep said machines in repair, may purchase all needed materials and supplies, and may incur such other expenses as may be necessary to operate, maintain and transport said machines. Upon the application of the selectmen or road commissioners of a town of not more than twelve thousand inhabitants, said commission may furnish such road machinery for use in building or repairing ways in that town. The expenses incurred under the provisions of this section shall be paid by the towns using said machines, as apportioned and directed by said commission.

Road machines  
to be provided.  
1896, 486  
1896, 513, § 1.  
1897, 355, § 3.  
1901, 416.  
[Op. A. G.  
358.]

SECTION 20. No length of possession, or occupancy of land within the limits of a state highway, by an owner or occupant of adjoining land shall give him any title thereto, and any fences, buildings or other obstructions encroaching upon a state highway shall, upon written notice by said commission, be forthwith removed by the owner or occupant of adjoining land, and if not so re-

Rights of ad-  
joining owner  
or occupant, etc.  
1893, 476, § 12.

moved, said commission may cause the same to be removed upon said adjoining land.

Laying pipes,  
planting trees,  
etc., regulated.  
1893, 476, § 14.  
[1 Op. A. G.  
317.]

SECTION 21. No state highway shall be dug up for laying or placing pipes, sewers, poles, wires or railways or for other purposes, and no tree shall be planted or removed or obstruction placed thereon, without the written permit of the highway commission, and then only in accordance with the regulations of said commission; and the work shall be done under the supervision and to the satisfaction of said commission, and the entire expense of replacing the highway in as good condition as before shall be paid by the persons to whom the permit was given or by whom the work was done; but a city or town may dig up such state highway without such approval of the highway commission in case of immediate necessity; but in such cases it shall be forthwith replaced in as good condition as before at the expense of the city or town. Said commission shall give suitable names to the state highways, and may change the name of any way which becomes a part of a state highway. They shall erect suitable guide posts at convenient points along state highways.

Names to be  
given to state  
highways;  
guide posts to  
be erected, etc.

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[REVISED LAWS, CHAPTER 6.]

Security against  
mechanics' liens  
on public build-  
ings.  
1878, 209.  
P. S. 16, § 64.  
174 Mass. 335.

SECTION 77. Officers or agents who contract in behalf of the commonwealth for the construction or repair of public buildings or other public works shall obtain sufficient security, by bond or otherwise, for payment by the contractor and sub-contractors for labor performed or furnished and for materials used in such construction or repair; but in order to obtain the benefit of such security, the claimant shall file with such officers or agents, a sworn statement of his claim, within sixty days after the completion of the work.

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[REVISED LAWS, CHAPTER 112.]

Location of  
roads proposed  
to be placed

SECTION 38. If the selectmen of a town and the president of a street railway company make application to the

Massachusetts highway commission, and with the application submit satisfactory plans, profiles and cross-sections of a way which the selectmen, or the county commissioners of the county in which the town lies, have in writing requested the commonwealth to take charge of, said commission shall indicate on such plans and profiles a location and grade for the tracks of said street railway company. If said commission considers said way suitable for a state highway, and said commission and the president of said street railway company agree as to the proportionate part of the cost of constructing it which shall be paid by the commonwealth and by the street railway company, then said commission may pay, out of the appropriations for the construction and repair of state highways, said proportionate part of the damages sustained by a person whose property is injured by the construction of such state highway, and of the cost of grading said road to the lines established by the Massachusetts highway commission. A way which is graded under the provisions of this section shall remain a town way or a highway, subject to all laws relative thereto, until said way is taken charge of as a state highway by the commonwealth.

under control  
of highway  
commission.  
1901, 414.

SECTION 61. If a public way in which a street railway location has been granted shall be thereafter laid out, taken charge of or constructed by or under the authority of the state highway commission, said commission shall thereafter, relative to the location and maintenance of street railways upon such state highway, have the same authority and exercise it in the same manner and subject to the same provisions as is conferred by the provisions of sections seven, eleven, thirty, thirty-one, thirty-two and forty-four upon boards of aldermen and selectmen, but subject to the same rights of abutters and of the street railway company, as is provided in section seven with respect to the relocation and maintenance of street railways in other public ways which are not under the charge of said commission.

Supervision by  
state highway  
commission.  
1898, 578, § 24.

**APPROPRIATIONS FOR THE CONSTRUCTION AND REPAIR OF STATE  
HIGHWAYS.**

1894, chapter 497, section 8,	.	.	.	.	.	.	.	\$300,000 00
1895, chapter 347, section 3,	.	.	.	.	.	.	.	400,000 00
1896, chapter 481, section 3,	.	.	.	.	.	.	.	600,000 00
1897, chapter 340, section 1,	.	.	.	.	.	.	.	800,000 00
1898, chapter 539, section 1,	.	.	.	.	.	.	.	400,000 00
1899, chapter 396, section 1,	.	.	.	.	.	.	.	500,000 00
1900, chapter 442, section 1,	.	.	.	.	.	.	.	500,000 00
1901, chapter 269, section 1,	.	.	.	.	.	.	.	500,000 00
Total, . . . . .	.	.	.	.	.	.	.	<u>\$4,000,000 00</u>

**APPROPRIATIONS FOR THE SALARIES AND EXPENSES OF THE COMMISSION,  
PAID FROM THE TREASURY OF THE COMMONWEALTH.**

1898, <sup>1</sup> chapter 579, section 1,	.	.	.	.	.	.	.	<sup>2</sup> \$14,300 00
1899, chapter 367, section 1,	.	.	.	.	.	.	.	28,500 00
1900, chapter 141, section 1,	.	.	.	.	.	.	.	28,500 00
1901, chapter 451, section 1,	.	.	.	.	.	.	.	33,750 00

<sup>1</sup> Previous to 1898 the salaries and expenses of the commission were paid out of the State highway loan fund.

<sup>2</sup> This appropriation bill was approved June 23, 1898, and the amount named was for the remainder of the year.

## APPENDIX G.

COST PER MILE OF ROAD (SECTIONS LAID OUT AND  
CONSTRUCTED DURING 1901).

TOWN OR CITY.	Square Yards.	Miles.	Cost per Mile.
Abington, . . . . .	4,101	.48	\$10,316 15
Acton (west), . . . . .	6,333	.72	11,497 86
Acton (great road), . . . . .	4,666	.64	8,050 96
Acushnet, . . . . .	15,567	1.77	1,575 31
Amesbury, . . . . .	4,962	.56	10,423 36
Attleborough, <sup>1</sup> . . . . .	10,580	1.20	3,475 50
Barnstable, . . . . .	7,000	1.00	2,142 68
Belchertown, . . . . .	5,846	.66	7,153 50
Brewster (1), . . . . .	21,000	2.50	1,212 05
Brewster (2), . . . . .	24,650	2.80	1,499 92
Chatham, . . . . .	6,000	.68	2,788 97
Chelmsford, . . . . .	4,588	.51	8,675 43
Chester, . . . . .	4,295	.49	11,444 82
Concord, . . . . .	4,643	.53	7,868 00
Dartmouth, <sup>2</sup> . . . . .	5,800	.46	12,446 58
Deerfield, . . . . .	3,883	.44	10,605 02
Dennis, . . . . .	2,951	.31	7,059 35
Edgartown, . . . . .	3,210	.36	5,730 86
Gardner, . . . . .	5,583	.60	8,720 42
Hardwick, . . . . .	3,900	.43	9,987 42
Lunenburg, . . . . .	3,528	.40	11,815 67
Marion, . . . . .	3,009	.35	5,694 34
Merrimac, . . . . .	5,667	.64	8,046 72
Methuen, . . . . .	4,165	.52	8,817 48
Natick-Wellesley, . . . . .	21,250	2.32	5,480 53
Newbury, . . . . .	6,166	.70	6,327 44
Newton, . . . . .	9,082	1.03	6,363 95
North Adams, . . . . .	4,220	.46	10,559 13
North Reading, . . . . .	6,625	.75	7,037 80
Orange-Erving, . . . . .	10,895	1.23	8,394 19
Palmer, <sup>3</sup> . . . . .	4,221	.48	11,179 84
Palmer-Monson, . . . . .	4,740	.60	10,354 62
Princeton, . . . . .	4,416	.50	9,980 84
Provincetown, . . . . .	1,917	.22	3,619 64
Richmond, <sup>1</sup> . . . . .	3,608	.41	6,438 46
Salem, <sup>1</sup> . . . . .	1,167	.13	9,470 85

<sup>1</sup> Gravel road.    <sup>2</sup> Macadam, 18 feet in width.    <sup>3</sup> Includes cost of repairing two bridges.

COST PER MILE OF ROAD, ETC. — *Concluded.*

TOWN OR CITY.	Square Yards.	Miles.	Cost per Mile.
Seekonk, <sup>1</sup> . . . . .	4,567	.52	\$3,349 44
Stoneham, . . . . .	3,417	.39	7,403 18
Sudbury, . . . . .	13,095	1.48	5,231 65
Sutton, . . . . .	4,467	.51	9,793 41
Swampscott, <sup>2</sup> . . . . .	5,003	.46	12,436 69
Uxbridge, . . . . .	3,970	.50	9,390 80
Warren, <sup>3</sup> . . . . .	4,200	.47	11,890 91
Wenham, . . . . .	4,500	.51	8,387 19
West Bridgewater (1), . . . . .	3,750	.99	4,845 22
West Bridgewater (2), . . . . .	3,562	.97	4,068 10
West Brookfield, <sup>3</sup> . . . . .	6,083	.69	14,274 91
Westfield, . . . . .	7,250	.82	6,131 34
Wilbraham, . . . . .	1,935	.22	7,395 45
Wrentham, . . . . .	6,667	.76	5,985 53
Total, . . . . .	826,210	37.12	-
Average cost per mile, . . . . .	. . . . .	. . . . .	\$6,311 37

<sup>1</sup> Gravel road.<sup>2</sup> Macadam, 20 feet and 18 feet in width.<sup>3</sup> Includes cost of constructing new bridge and abutments.



## APPENDIX H.

## MAINTENANCE.

*Table showing the Amounts expended for Repairs and Maintenance and the Cost per Mile per Year on Each Road finished previous to 1902; also the Number of Miles of Road under Maintenance and the Amounts to be assessed upon Municipalities for Maintenance under Chapter 432 of the Acts of 1900.*

TOWN OR CITY.	Expended in 1901.	Expended in 1901.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1901.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Ablington, . . .	-	\$3 27	\$3 27	\$11 28	\$4 67	1.18	\$3 27
Acton, . . .	\$23 95	53 60	77 55	20 35	12 92	4.15	53 60
Acushnet, . . .	591 70	180 87	772 07	321 70	300 61	.60	30 00
Adams, . . .	227 67	152 45	380 12	190 06	267 45	.57	28 50
Amesbury, . . .	54 11	137 61	191 72	248 99	269 82	.51	25 50
Andover, . . .	568 86	188 47	757 33	72 20	61 39	3.07	153 50
Ashby, . . .	1,835 51	72 96	1,908 47	119 73	20 44	8.57	72 96
Ashfield, . . .	403 34	303 02	706 36	142 70	188 21	1.61	80 50
Athol, . . .	4,254 80	38 01	4,292 81	533 27	23 61	1.61	38 01
Attleborough, . .	-	4 69	4 69	5 10	4 69	1.00	4 69
Auburn, . . .	798 23	424 84	1,217 57	102 92	133 22	3.07	153 50
Barnstable, . . .	302 86	198 10	500 96	100 39	110 67	1.79	89 50
Barre, . . .	56 71	28 00	84 71	20 61	17 18	1.63	28 00
Bedford, . . .	34 25	25 29	59 54	30 69	46 83	.54	25 29
Belchertown, . .	-	3 11	3 11	14 14	4 64	.67	3 11
Beverly, . . .	732 65	146 03	878 68	96 24	72 65	2.01	100 50
Blackstone, . . .	87 06	15 39	102 45	66 10	13 15	1.17	15 39
Bourne, . . .	203 50	137 04	340 54	79 75	96 51	1.42	71 00
Boxborough, . . .	124 83	36 62	161 45	38 62	26 92	1.36	36 62
Braintree, . . .	-	2 14	2 14	9 30	4 65	.46	2 14
Brewster, . . .	1,059 30	215 18	1,274 48	95 11	27 62	7.79	215 18

*Table showing the Amounts expended for Repairs, etc. — Continued.*

TOWN OR CITY.	Expended to 1901.	Expended in 1901.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1901.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Brimfield, . . .	\$325 21	\$127 30	\$452 51	\$74 80	\$54 40	2.34	\$117 00
Brockton, . . .	261 58	92 53	354 11	64 38	36 72	2.52	92 53
Brookfield, . . .	205 12	165 16	370 28	112 55	118 82	1.89	69 50
Buckland, . . .	597 11	358 24	955 35	75 52	102 35	3.50	175 00
Charlemont, . . .	354 66	180 21	534 87	221 94	234 04	.77	38 50
Chatham, . . .	185 05	54 25	189 30	182 38	41 10	1.32	54 25
Chelmsford, . . .	211 17	67 97	279 14	106 19	47 20	1.44	67 97
Cheshire, . . .	4 70	151 53	156 23	82 66	106 71	1.42	71 00
Chester, . . .	128 79	216 42	345 21	328 77	327 91	.66	33 00
Chicopee, . . .	845 66	497 79	1,343 45	480 59	535 26	.93	46 50
Cohasset, . . .	109 88	83 50	143 38	44 89	19 36	1.73	33 50
Colrain, . . .	158 51	150 93	309 44	122 79	139 75	1.08	54 00
Concord, . . .	196 75	57 18	253 88	48 36	28 71	1.99	57 13
Cottage City, . . .	2,691 25	465 70	3,156 95	237 36	196 49	2.37	118 50
Dalton, . . .	2,061 54	608 11	2,669 65	342 26	389 81	1.56	78 00
Dartmouth, . . .	213 10	73 03	286 13	75 70	27 25	2.68	73 03
Deerfield, . . .	1,063 71	103 27	1,166 98	141 11	52 42	1.97	98 50
Dennis, . . .	1,345 24	387 80	1,733 04	93 73	69 62	5.57	278 50
Duxbury, . . .	498 49	128 40	626 89	68 96	62 63	2.05	102 50
Easthampton, . . .	474 58	42 54	517 12	66 73	17 87	2.38	42 54
Easton, . . .	-	10 62	10 62	13 79	13 28	.80	10 62
Edgartown, . . .	126 85	62 92	189 77	87 45	41 39	1.52	62 92
Erving, . . .	62 67	143 97	206 64	64 98	70 57	2.04	102 00
Fairhaven, . . .	252 50	176 35	428 85	47 92	121 62	1.45	72 50
Fitchburg, . . .	451 83	81 60	533 43	62 83	37 77	2.16	81 60
Gardner, . . .	570 18	189 96	760 14	93 38	56 70	3.35	167 50
Gloucester, . . .	826 60	294 84	1,121 44	99 68	118 89	2.48	124 00
Goaten, . . .	1,539 16	53 81	1,592 97	143 38	28 17	1.91	53 81
Grafton, . . .	148 89	236 05	384 94	95 76	152 29	1.55	77 50
Granby, . . .	603 84	55 06	658 90	167 23	87 40	.63	31 50
Great Barrington, . . .	2,731 73	671 03	3,402 76	254 70	240 51	2.79	139 50
Greenfield, . . .	2 92	78 66	81 58	60 43	79 45	.99	49 50
Hadley, . . .	2,145 86	317 67	2,463 53	219 57	116 36	2.73	136 50
Hamilton, . . .	3 28	88 19	91 47	46 67	61 24	1.44	72 00

*Table showing the Amounts expended for Repairs, etc. — Continued.*

TOWN OR CITY.	Expended to 1901.	Expended in 1901.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1901.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Hancock, . . .	\$2,426 16	\$596 76	\$3,022 92	\$267 75	\$184 75	3.23	\$161 50
Hardwick, . . .	102 92	36 72	139 64	94 35	44 78	.82	36 72
Harvard, . . .	-	3 28	3 28	14 26	4 68	.70	3 28
Harwich, . . .	126 35	101 64	227 99	73 31	40 17	2.53	101 64
Haverhill, . . .	2 00	16 53	18 53	4 64	7 95	2.08	16 53
Hingham, . . .	656 81	117 51	774 32	55 67	44 17	2.66	117 51
Holbrook, . . .	297 01	35 93	332 99	58 63	32 42	1.11	35 98
Holden, . . .	769 30	261 37	1,030 67	61 42	69 51	3.76	188 00
Huntington, . . .	1,153 74	412 32	1,566 06	322 90	408 23	1.01	50 50
Lawrence, . . .	86 89	1,184 14	1,271 03	1,086 35	4,385 70	.27	13 50
Lee, . . .	1,268 95	405 36	1,674 31	142 49	125 11	3.24	162 00
Leicester, . . .	8,860 51	379 16	9,239 67	505 18	78 18	4.85	242 50
Lenox, . . .	163 29	632 73	846 02	571 64	299 44	2.28	114 00
Lexington, . . .	524 13	125 93	650 06	42 74	29 36	4.29	125 93
Lincoln, . . .	389 40	72 84	462 24	46 36	35 19	2.07	72 84
Lowell (north), . . .	225 37	25 12	250 49	236 16	643 57	2.31	115 50
Lowell (south), . . .	332 49	1,455 10	1,787 59				
Lunenburg, . . .	97 42	225 62	323 04	106 26	122 62	1.84	92 00
Marion, . . .	362 66	110 58	473 24	37 56	34 45	3.21	110 58
Marlborough, . . .	175 39	126 51	301 90	65 77	59 96	2.11	105 50
Marshfield, . . .	277 00	120 98	397 98	51 96	60 49	2.00	100 00
Mattapoisett, . . .	307 66	119 30	426 96	53 37	60 25	1.98	99 00
Merrimac, . . .	107 54	166 34	273 88	89 50	180 80	.92	46 00
Methuen, . . .	249 36	143 72	393 08	80 55	86 58	1.66	93 00
Middleborough, . . .	484 54	71 76	556 30	40 46	26 00	2.76	71 76
Milton, . . .	21 11	1,210 34	1,231 45	1,558 80	1,391 19	.87	43 50
Monson, . . .	540 40	95 22	635 62	113 91	102 38	.93	46 50
Montague, . . .	244 77	13 62	258 39	61 96	8 35	1.63	13 62
Nantucket, . . .	1,686 92	237 90	1,924 82	83 54	46 02	5.17	237 90
New Braintree, . . .	10 89	14 51	25 40	43 79	85 35	.17	8 50
Newbury, . . .	2 60	45 56	48 16	46 76	37 34	1.22	45 56
Newburyport, . . .	484 44	123 58	608 02	107 23	70 62	1.76	87 50
Norfolk, . . .	292 89	33 91	326 80	45 08	23 38	1.46	33 91
North Adams, . . .	1,378 12	132 50	1,510 62	159 52	49 07	2.70	132 50

*Table showing the Amounts expended for Repairs, etc. — Continued.*

TOWN OR CITY.	Expended in 1901.	Expended in 1901.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1901.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
North Andover, .	-	\$90 21	\$90 21	\$114 19	\$114 19	.79	\$39 50
Northampton, . .	\$479 03	42 96	521 99	79 57	25 57	1.68	42 96
North Attleborough,	482 44	906 29	1,388 73	80 46	261 75	3.60	180 00
Northborough, . .	108 84	123 03	231 87	42 94	55 91	2.20	110 00
North Reading, . .	67 51	4 72	72 23	23 37	2 68	1.76	4 72
Norwood, . . . .	398 45	173 83	572 28	68 29	84 79	2.05	102 50
Orange, . . . . .	1,204 78	69 92	1,274 70	122 57	23 23	3.01	69 92
Orleans, . . . . .	-	32 59	32 59	39 74	39 74	.82	32 59
Palmer, . . . . .	5 25	138 30	143 55	51 64	55 10	2.51	125 50
Paxton, . . . . .	1,530 62	237 87	1,768 49	104 27	73 42	3.24	162 00
Phillipston, . . .	244 63	91 82	336 45	99 25	77 16	1.19	59 50
Pittsfield, . . . .	1,322 51	560 12	2,382 63	211 60	242 47	2.36	118 00
Plymouth, . . . .	1,997 66	546 05	2,543 71	140 92	141 83	3.85	192 50
Princeton, . . . .	173 75	4 64	178 39	82 20	4 64	1.00	4 64
Provincetown, . .	-	1 01	1 01	12 62	4 59	.22	1 01
Quincy, . . . . .	2 46	22 41	24 87	38 26	45 73	.49	22 41
Reading, . . . . .	26 12	133 49	159 61	118 23	124 75	1.07	53 50
Rehoboth, . . . .	464 43	39 77	504 20	62 32	21 05	1.89	39 77
Revere (east), . .	275 50	139 64	415 14	486 76	713 35	1.25	62 50
Revere (west), . .	229 82	752 05	981 87				
Richmond, . . . .	212 12	494 56	706 68	188 45	279 41	1.77	88 50
Russell, . . . . .	2,955 27	938 83	3,894 10	146 56	140 96	6.66	333 00
Sandwich, . . . .	848 30	117 46	965 76	146 11	45 88	2.56	117 46
Saugus, . . . . .	278 26	346 33	624 59	260 24	216 46	1.80	80 00
Scituate, . . . . .	458 30	179 44	637 74	104 20	101 38	1.77	88 50
Seekonk, . . . . .	-	2 65	2 65	9 14	4 65	.57	2 65
Shelburne, . . . .	911 67	52 65	964 32	84 81	24 38	2.16	52 65
Shrewsbury, . . .	554 67	368 46	923 12	65 84	94 47	3.90	195 00
Somerset, . . . . .	416 86	146 97	563 83	46 03	40 94	3.59	146 97
South Hadley, . .	1,166 38	297 66	1,464 04	201 38	123 00	2.42	121 00
Spencer, . . . . .	-	78 58	78 58	73 44	49 42	1.59	78 58
Sterling, . . . . .	221 95	161 05	383 00	95 75	124 84	1.29	64 50
Stoneham, . . . .	284 97	38 70	323 67	129 98	24 49	1.58	38 70
Sturbridge, . . . .	79 59	83 99	163 58	80 98	142 35	.59	29 50

*Table showing the Amounts expended for Repairs, etc. — Continued.*

TOWN OR CITY.	Expended to 1901.	Expended in 1901.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1901.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Sudbury, . . .	\$107 87	\$21 08	\$128 95	\$37 59	\$7 32	2.88	\$21 08
Sunderland, . .	20 53	88	21 41	35 10	4 63	.19	88
Sutton, . . .	2 44	69 56	72 00	67 29	69 56	1.00	50 00
Swampscott, . .	411 42	61 14	472 56	139 81	41 03	1.49	61 14
Taunton, . . .	870 44	59 55	929 99	108 90	27 96	2.13	59 55
Templeton, . .	75 70	42 74	118 44	84 60	67 84	.63	81 50
Tewksbury, . .	2 82	23 30	26 12	36 79	40 88	.57	23 30
Tisbury, . . .	833 15	113 96	947 11	77 50	59 05	1.93	96 50
Townsend, . . .	271 11	131 96	403 07	55 37	44 58	2.96	131 96
Truro, . . .	307 74	220 56	528 30	82 67	93 46	2.36	118 00
Tyngsborough, .	923 04	95 51	1,018 55	78 17	32 38	2.95	95 51
Uxbridge, . . .	127 28	147 96	275 24	74 79	83 12	1.78	89 00
Walpole, . . .	871 12	275 29	1,146 41	67 71	60 64	4.54	227 00
Ware, . . .	207 32	80 73	288 05	85 98	44 85	1.80	80 73
Wareham, . . .	209 39	26 48	235 87	36 12	16 35	1.62	26 48
Warren, . . .	584 89	150 29	715 18	87 32	61 09	2.46	123 00
Watertown, . .	753 08	214 14	967 22	220 32	251 93	.85	42 50
Wayland, . . .	58 21	196 02	254 23	66 90	86 35	2.27	113 50
Wenham, . . .	155 44	50 86	206 30	83 18	45 41	1.12	50 86
Westborough, . .	132 93	13 99	146 92	58 53	19 98	.70	13 99
West Boylston, .	585 47	24 54	610 01	128 42	15 84	1.55	24 54
West Bridgewater, .	-	4 64	4 64	12 54	4 69	.99	4 64
West Brookfield, .	4 80	32 35	37 15	23 07	33 35	.97	32 35
Westfield, . . .	2,069 36	355 23	2,424 59	144 66	72 35	4.91	245 50
Westminster, . .	870 89	81 69	952 58	76 95	27 23	3.00	81 69
West Newbury, .	1,629 37	198 08	1,827 45	176 90	88 43	2.24	112 00
Weston, . . .	182 86	126 63	309 49	49 12	40 20	3.15	126 63
Westport, . . .	1,732 05	826 48	2,558 53	126 91	194 47	4.25	212 50
West Springfield, .	665 10	181 23	846 33	144 67	157 59	1.15	57 50
West Tisbury, . .	492 98	121 34	614 32	47 92	42 73	2.84	121 34
Westwood, . . .	73 14	75 28	148 42	106 00	71 69	1.05	52 50
Weymouth, . . .	648 67	123 99	772 66	90 69	62 00	2.00	100 00
Whately, . . .	3 87	12 04	15 91	15 30	15 44	.78	12 04
Whitman, . . .	325 82	180 13	505 95	52 65	106 58	1.69	84 50

*Table showing the Amounts expended for Repairs, etc. — Concluded.*

TOWN OR CITY.	Expended to 1901.	Expended in 1901.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1901.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Wilbraham, . .	\$729 22	\$34 06	\$763 28	\$81 72	\$15 92	2.14	\$34 06
Williamsburg, . .	364 11	80 48	444 59	87 86	37 96	2.12	80 48
Williamstown, . .	597 09	168 78	761 47	97 87	85 80	1.92	96 00
Winchester, . .	94 33	340 64	434 97	144 03	174 69	1.95	97 50
Windsor, . . .	17 91	1 33	19 24	21 62	4 75	.28	1 33
Worcester, . .	845 41	150 03	995 44	117 11	58 83	2.55	127 50
Wrentham, . .	645 89	148 97	794 86	47 54	27 38	5.44	148 97
Yarmouth (north), .	909 47	241 97	1,151 44	59 29	65 22	3.71	185 50
Yarmouth (south), .	1,647 12	449 85	2,096 97	91 41	88 55	5.08	254 00
Totals, . . .	\$96,755 36	\$31,061 47	\$127,816 83	-	-	-	\$13,639 00

## APPENDIX J.

STATEMENT SHOWING ALL PETITIONS RECEIVED,  
WITH LENGTHS OF WAY PETITIONED FOR AND  
LAY-OUTS MADE, TOGETHER WITH SUMMARY BY  
COUNTIES.*Barnstable County.*

COUNTY, CITY OR TOWN.	No.	Petition re- ceived.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
					1894-1900.		1901.	
			Feet.	Miles.	Feet.	Miles.	Feet.	Miles.
Barnstable, <sup>1,2</sup>	125	July 31, 1895,	10,548	2.00	-	-	-	-
Barnstable, <sup>2,3</sup>	231	Feb. 13, 1896,	7,700	1.46	4,462	.84	2,200	.42
Barnstable, <sup>1,4</sup>	418	Apr. 23, 1898,	10,560	2.00	5,000	.95	-	-
Barnstable, <sup>5</sup>	546	Apr. 8, 1901,	5,280	1.00	-	-	5,295	1.00
Barnstable, <sup>5</sup>	557	Oct. 24, 1901,	13,200	2.50	-	-	-	-
Barnstable, <sup>5</sup>	559	Nov. 14, 1901,	9,200	1.75	-	-	-	-
Bourne, <sup>7</sup>	124	Jan. 29, 1895,	16,125	3.05	-	-	-	-
Bourne, <sup>8</sup>	338	May 1, 1897,	7,470	1.42	7,470	1.42	-	-
Bourne, <sup>9</sup>	445	Dec. 19, 1898,	27,000	5.11	-	-	-	-
Brewster,	118	Jan. 15, 1895,	40,982	7.76	13,117	2.49	27,992	5.30
Chatham, <sup>3</sup>	155	Apr. 4, 1895,	10,639	2.01	3,114	.59	3,600	.68
Chatham, <sup>3</sup>	510	Jan. 8, 1901,	10,560	2.00	-	-	-	-
Dennis, <sup>1</sup>	102	Nov. 27, 1894,	22,514	4.27	22,511	4.27	-	-
Dennis, <sup>3</sup>	126	Feb. 6, 1895,	17,224	3.26	5,262	1.00	1,617	.31
Eastham,	209	Aug. 5, 1895,	34,144	6.47	-	-	-	-
Falmouth,	547	Apr. 29, 1901,	93,720	17.75	-	-	-	-
Harwich, <sup>10</sup>	106	Dec. 22, 1894,	26,150	4.95	11,360	2.15	2,000	.38
Harwich, <sup>3</sup>	514	Jan. 14, 1901,	14,520	2.75	-	-	-	-
Mashpee,	515	Jan. 14, 1901,	22,440	4.25	-	-	-	-
Orleans, <sup>1</sup>	182	May 27, 1895,	10,440	1.98	4,848	.82	2,246	.42
Orleans, <sup>11</sup>	479	Dec. 14, 1899,	13,725	2.60	-	-	-	-
Provincetown, <sup>12</sup>	186	June 4, 1895,	14,790	2.80	-	-	-	-
Provincetown, <sup>13</sup>	504	Nov. 9, 1900,	1,200	.23	-	-	1,150	.22
Sandwich, <sup>1,18</sup>	98	Nov. 23, 1894,	9,000	1.70	9,000	1.70	-	-
Sandwich, <sup>1</sup>	430	July 15, 1895,	6,382	1.21	4,500	.85	-	-
Sandwich, <sup>1,14</sup>	516	Jan. 17, 1901,	21,806	4.13	-	-	-	-
Truro, <sup>15</sup>	95	Oct. 22, 1894,	12,478	2.36	12,478	2.36	-	-
Truro, <sup>16</sup>	386	Dec. 1, 1897,	20,300	3.84	-	-	-	-
Wellfleet, <sup>17,18</sup>	229	Jan. 30, 1896,	-	-	-	-	-	-
Wellfleet, <sup>17</sup>	483	Feb. 19, 1900,	35,640	6.76	-	-	-	-
Yarmouth, <sup>1</sup>	90	Sept. 28, 1894,	19,634	3.72	19,585	3.71	-	-
Yarmouth, <sup>3</sup>	100	Nov. 26, 1894,	26,900	5.10	26,825	5.08	-	-
Totals,			592,271	112.17	149,032	28.23	46,100	8.73

Thirty-two petitions, in fifteen towns.

Average distance petitioned for, 18,508 feet (3.51 miles).

Forty-seven lay-outs, in eleven towns; all on town petitions.

Total length laid out, 195,132 feet (36.96 miles); average, 4,152 feet (.79 mile).

Percentage of length laid out to length petitioned for, 32.89.

<sup>1</sup> North county road.<sup>2</sup> From Yarmouth line.<sup>3</sup> South county road.<sup>4</sup> From Sandwich line.<sup>5</sup> Cotuit road, from Marston's Mills.<sup>6</sup> Falmouth road, from Marston's Mills.<sup>7</sup> Plymouth line to Sandwich line.<sup>8</sup> Bourne Village to Wareham line.<sup>9</sup> Bourne Village to Sandwich line.<sup>10</sup> South county road and road to Harwich Centre.<sup>11</sup> Chatham road.<sup>12</sup> Truro road.<sup>13</sup> From Barnstable line.<sup>14</sup> From Bourne line.<sup>15</sup> Wellfleet line to Kelly's Corner.<sup>16</sup> North Truro to Kelly's Corner.<sup>17</sup> County road.<sup>18</sup> Included in subsequent petition.

*Berkshire County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Adams, <sup>1,2</sup>	48	July 18, 1894,	9,020	1.71	-	-	-	-
Adams, <sup>3</sup>	279	July 30, 1896,	5,280	1.00	3,000	.57	-	-
Adams, <sup>4</sup>	376	Oct. 16, 1897,	12,628	2.39	-	-	-	-
Becket, <sup>5,6</sup>	117	Jan. 12, 1895,	-	-	-	-	-	-
Becket, <sup>5</sup>	440	Dec. 16, 1898,	53,480	10.12	-	-	-	-
Becket, <sup>7</sup>	561	Dec. 6, 1901,	34,320	6.50	-	-	-	-
Berkshire County, <sup>8</sup>	46	July 18, 1894,	-	-	-	-	-	-
Berkshire County, <sup>9</sup>	47	July 18, 1894,	-	-	-	-	-	-
Berkshire County, <sup>10</sup>	82	Aug. 13, 1894,	-	-	-	-	-	-
Berkshire County, <sup>11</sup>	88	Aug. 13, 1894,	-	-	-	-	-	-
Berkshire County, <sup>12</sup>	170	May 10, 1895,	-	-	-	-	-	-
Berkshire County, <sup>13</sup>	187	June 6, 1895,	-	-	-	-	-	-
Berkshire County, <sup>14</sup>	275	July 25, 1896,	-	-	-	-	-	-
Berkshire County, <sup>15</sup>	276	July 25, 1896,	-	-	-	-	-	-
Berkshire County, <sup>16</sup>	277	July 25, 1896,	-	-	-	-	-	-
Berkshire County, <sup>17</sup>	278	July 25, 1896,	-	-	-	-	-	-
Berkshire County, <sup>18</sup>	293	Sept. 21, 1896,	-	-	-	-	-	-
Berkshire County, <sup>19</sup>	330	Mar. 9, 1897,	-	-	-	-	-	-
Berkshire County, <sup>20</sup>	415	April 7, 1898,	-	-	-	-	-	-
Berkshire County, <sup>21</sup>	434	Oct. 5, 1898,	-	-	-	-	-	-
Berkshire County, <sup>22</sup>	435	Oct. 5, 1898,	-	-	-	-	-	-
Cheshire, <sup>23,24</sup>	46	-	3,280	.62	-	-	-	-
Cheshire, <sup>25,26</sup>	331	Mar. 11, 1897,	-	-	7,500	1.42	-	-
Cheshire, <sup>27</sup>	410	Dec. 16, 1899,	34,300	6.50	-	-	2,400	.46
Clarksburg,	431	July 26, 1898,	5,280	1.00	-	-	-	-
Dalton, <sup>28</sup>	26	June 10, 1894,	-	-	-	-	-	-
Dalton, <sup>29</sup>	176	May 14, 1895,	6,314	1.20	5,459	1.03	-	-
Dalton, <sup>30</sup>	238	April 1, 1896,	5,190	.98	2,800	.53	-	-
Dalton, <sup>31</sup>	313	Jan. 29, 1897,	3,200	.63	-	-	-	-
Dalton, <sup>32</sup>	340	May 18, 1897,	5,450	1.04	-	-	-	-
Florida,	74	Aug. 1, 1894,	26,853	5.09	-	-	-	-
Great Barrington, <sup>33,34</sup>	82	-	10,560	2.00	10,560	2.00	-	-
Great Barrington, <sup>35</sup>	267	June 18, 1896,	10,284	1.95	4,146	.79	-	-
Hancock, <sup>36,37</sup>	170	-	6,289	1.19	6,200	1.18	-	-
Hancock, <sup>38,39</sup>	293	-	9,938	1.88	8,242	1.56	-	-
Hancock, <sup>40,41</sup>	330	-	2,574	.49	2,574	.49	-	-
Hinsdale, <sup>42</sup>	156	Apr. 6, 1895,	5,624	1.07	-	-	2,100	.40
Hinsdale, <sup>43,44</sup>	523	Feb. 12, 1901,	-	-	-	-	-	-
Hinsdale, <sup>45</sup>	560	Nov. 21, 1901,	29,040	5.50	-	-	-	-
Lanesborough, <sup>46,47</sup>	278	-	5,280	1.00	-	-	-	-

<sup>1</sup> Duplicate of county petition.<sup>2</sup> Cheshire-Savoy road.<sup>3</sup> Maple Grove road.<sup>4</sup> North Adams road.<sup>5</sup> Pittsfield-Springfield road.<sup>6</sup> Covered by subsequent petition.<sup>7</sup> To Becket Centre and North Becket.<sup>8</sup> See Adams.<sup>9</sup> See North Adams.<sup>10</sup> See Great Barrington.<sup>11</sup> See Lee.<sup>12</sup> See Hancock.<sup>13</sup> See Otis.<sup>14</sup> See Savoy.<sup>15</sup> See Cheshire.<sup>16</sup> See Lanesborough.<sup>17</sup> See West Stockbridge.<sup>18</sup> See Richmond.<sup>19</sup> See Tyringham.<sup>20</sup> On county petition.<sup>21</sup> Pittsfield-North Adams road.<sup>22</sup> Pittsfield-Northampton road.<sup>23</sup> Monterey road.<sup>24</sup> Lebanon Springs road.<sup>25</sup> Road to Williamstown.



*Berkshire County—Concluded.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Lanesborough, <sup>1</sup>	549	June 7, 1901,	11,880	2.25	-	-	-	-
Lee, <sup>2,3</sup>	83	-	5,280	1.00	5,188	.98	-	-
Lee, <sup>2,3</sup>	187	-	5,280	1.00	5,292	1.00	-	-
Lee, <sup>4</sup>	252	May 25, 1896,	5,280	1.00	-	-	-	-
Lee, <sup>5</sup>	248	June 14, 1897,	6,762	1.28	6,645	1.26	-	-
Lenox, <sup>6</sup>	178	May 16, 1895,	5,280	1.00	-	-	5,280	1.00
Lenox, <sup>6</sup>	316	Feb. 7, 1897,	6,770	1.28	6,396	1.21	370	.07
Monterey,	256	June 5, 1896,	5,280	1.00	-	-	-	-
Mount Washington,	92	Oct. 1, 1894,	8,300	1.57	-	-	-	-
North Adams, <sup>3,7</sup>	47	-	9,028	1.71	8,913	1.69	-	-
North Adams, <sup>7</sup>	254	May 27, 1896,	5,807	1.10	-	-	-	-
North Adams, <sup>1</sup>	393	Dec. 22, 1897,	12,436	2.36	2,870	.56	2,465	.46
Otis,	275	-	5,280	1.00	-	-	-	-
Pittsfield, <sup>8</sup>	78	Aug. 7, 1894,	24,087	4.56	8,145	1.54	1,963	.37
Pittsfield, <sup>9</sup>	259	June 10, 1896,	6,000	1.13	4,040	.76	-	-
Richmond, <sup>10</sup>	198	June 4, 1895,	10,462	1.98	-	-	-	-
Richmond, <sup>11</sup>	248	May 9, 1896,	5,800	1.00	5,280	1.00	-	-
Richmond, <sup>11,3</sup>	484	-	12,900	2.44	1,911	.36	1,260	.24
Sandisfield,	459	Mar. 13, 1899,	5,280	1.00	-	-	-	-
Savoy,	276	-	5,280	1.00	-	-	-	-
Stockbridge, <sup>12</sup>	136	Feb. 26, 1895,	10,700	2.02	-	-	-	-
Stockbridge, <sup>12</sup>	507	Dec. 2, 1900,	-	-	-	-	-	-
Tyringham,	438	-	5,500	1.04	-	-	-	-
West Stockbridge,	166	Sept. 30, 1895,	6,146	1.16	-	-	-	-
Williamstown, <sup>14</sup>	145	Mar. 10, 1895,	10,576	2.00	10,147	1.92	-	-
Williamstown, <sup>15</sup>	462	Apr. 17, 1899,	12,600	2.38	-	-	-	-
Windsor,	86	July 12, 1894,	42,787	8.10	1,501	.28	-	-
Totals,	.	.	534,415	101.22	116,809	22.12	15,828	3.00

Fifty-four petitions (fifteen county, four city and thirty-five town), in two cities and twenty-three towns.

Average distance petitioned for, 9,896 feet (1.87 miles).

Forty-one lay-outs, in two cities and eleven towns.

Laid out on county petitions, 50,140 feet (9.50 miles).

Laid out on city petitions, 19,473 feet (3.69 miles).

Laid out on town petitions, 63,024 feet (11.93 miles).

Total length laid out, 132,637 feet (25.12 miles); average, 3,235 feet (.61 mile).

Percentage of length laid out to length petitioned for, 24.82.

<sup>1</sup> Pittsfield-North Adams road.

<sup>2</sup> Pittsfield-Springfield road.

<sup>3</sup> On county petition.

<sup>4</sup> South Lee road.

<sup>5</sup> Lenox road.

<sup>6</sup> Lee road.

<sup>7</sup> Road to Williamstown.

<sup>8</sup> Lebanon Springs road.

<sup>9</sup> Dalton road.

<sup>10</sup> Hancock road.

<sup>11</sup> East road to Pittsfield.

<sup>12</sup> Old Housatonic Turnpike.

<sup>13</sup> Duplicate of former petition.

<sup>14</sup> North Adams road.

<sup>15</sup> Water Street.

*Bristol County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Acushnet, <sup>1</sup>	96	Oct. 24, 1894,	35,500	6.78	3,363	.64	9,340	1.77
Acushnet, <sup>2</sup>	97	Oct. 24, 1894,	6,326	1.20	-	-	-	-
Attleborough, <sup>3</sup>	183	May 29, 1895,	14,153	2.68	-	-	-	-
Attleborough, <sup>4</sup>	184	May 29, 1895,	5,122	.97	-	-	-	-
Attleborough, <sup>3,5</sup>	268	June 18, 1896,	-	-	5,297	1.00	6,350	1.20
Attleborough, <sup>3,5</sup>	508	Dec. 6, 1900,	-	-	-	-	-	-
Berkley,	281	Aug. 3, 1896,	22,650	4.29	-	-	-	-
Bristol County, <sup>6</sup>	53	July 24, 1894,	-	-	-	-	-	-
Dartmouth, <sup>7</sup>	22	July 9, 1894,	24,000	4.55	11,725	2.22	2,450	.46
Dighton, <sup>8</sup>	150	Mar. 26, 1895,	24,576	4.65	-	-	-	-
Dighton, <sup>9</sup>	226	Jan. 2, 1896,	8,261	1.56	-	-	-	-
Easton, <sup>10</sup>	139	Mar. 1, 1895,	39,000	7.39	-	-	-	-
Easton, <sup>11</sup>	365	Sept. 2, 1897,	4,300	.81	4,229	.80	-	-
Fairhaven,	31	July 10, 1894,	20,134	3.81	7,553	1.45	-	-
Freetown,	314	Feb. 3, 1897,	16,850	3.20	-	-	-	-
Mansfield, <sup>12</sup>	341	Apr. 8, 1897,	5,121	.97	-	-	-	-
Mansfield, <sup>13</sup>	527	Feb. 25, 1901,	14,520	2.75	-	-	3,800	.72
New Bedford,	191	June 18, 1895,	2,950	.56	-	-	-	-
North Attleborough,	18	July 5, 1894,	25,550	4.83	18,992	3.60	-	-
Raynham, <sup>10</sup>	134	Feb. 23, 1895,	23,000	4.36	-	-	-	-
Raynham, <sup>14</sup>	511	Jan. 5, 1901,	22,440	4.25	-	-	3,228	.61
Rehoboth, <sup>9</sup>	132	Feb. 20, 1895,	29,187	5.53	9,993	1.89	-	-
Rehoboth, <sup>15</sup>	476	June 19, 1899,	9,240	1.75	-	-	-	-
Seekonk, <sup>9</sup>	127	Feb. 6, 1895,	14,591	2.76	3,000	.57	2,700	.51
Seekonk, <sup>16</sup>	555	Sept. 12, 1901,	10,580	2.00	-	-	-	-
Somerset, <sup>8</sup>	147	Mar. 30, 1895,	29,800	5.64	18,981	3.59	2,158	.41
Somerset, <sup>17</sup>	526	Feb. 15, 1901,	1,172	.22	-	-	1,172	.22
Swanses,	285	Mar. 10, 1896,	36,516	6.92	-	-	-	-
Taunton, <sup>18</sup>	171	May 11, 1895,	25,864	4.89	-	-	-	-
Taunton, <sup>9</sup>	179	May 16, 1895,	23,762	4.50	14,400	2.73	1,084	.21
Taunton, <sup>10</sup>	180	May 19, 1895,	13,200	2.50	-	-	-	-
Westport, <sup>19</sup>	53	-	24,100	4.57	22,459	4.25	-	-
Totals,			532,484	100.84	120,092	22.74	32,282	6.11

Thirty-one petitions (one county, four city and twenty-six town), in two cities and sixteen towns.

Average distance petitioned for, 17,175 feet (3.25 miles).

Forty-five lay-outs, in one city and twelve towns.

Laid out on county petitions, 36,634 feet (6.94 miles).

Laid out on city petitions, 15,484 feet (2.93 miles).

Laid out on town petitions, 100,256 feet (18.99 miles).

Total length laid out, 152,374 feet (28.86 miles); average, 3,886 feet (.64 mile).

Percentage of length laid out to length petitioned for, 28.62.

<sup>1</sup> New Bedford-Boston road.

<sup>2</sup> Fairhaven road.

<sup>3</sup> Washington Street.

<sup>4</sup> North Avenue.

<sup>5</sup> Covered by previous petition.

<sup>6</sup> See Dartmouth and Westport.

<sup>7</sup> Duplicate of county petition.

<sup>8</sup> Taunton-Fall River road.

<sup>9</sup> Taunton-Providence Turnpike.

<sup>10</sup> Taunton-Boston road.

<sup>11</sup> Brockton-Mansfield road.

<sup>12</sup> South Main Street, from Norton line.

<sup>13</sup> Central, West and Main streets.

<sup>14</sup> Main Street.

<sup>15</sup> Town house road.

<sup>16</sup> Perrin's station road.

<sup>17</sup> Relocation.

<sup>18</sup> Somerset Avenue, Bow, Spring and Dean streets.

<sup>19</sup> On county petition.

*Dukes County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Chilmark, . . .	12	July 3, 1894,	38,846	7.26	-	-	-	-
Cottage City, <sup>1,2</sup> . .	7	-	13,117	2.48	12,538	2.37	-	-
Cottage City, <sup>1,3</sup> . .	335	-	2,150	.41	-	-	-	-
Dukes County, <sup>4</sup> . .	7	July 2, 1894,	-	-	-	-	-	-
Dukes County, <sup>5</sup> . .	335	Mar. 27, 1897,	-	-	-	-	-	-
Edgartown, <sup>1</sup> . . .	7	-	13,100	2.48	5,356	1.01	2,763	.52
Tisbury, <sup>6</sup> . . . .	3	June 23, 1894,	10,609	2.01	10,194	1.93	-	-
Tisbury, <sup>1,7</sup> . . . .	335	-	4,769	.90	-	-	-	-
West Tisbury, <sup>6</sup> . .	4	June 23, 1894,	31,333	5.94	15,000	2.84	-	-
West Tisbury, <sup>8</sup> . .	244	May 29, 1896,	6,300	1.19	-	-	-	-
Totals, . . . . .	.	.	119,723	22.67	43,088	8.16	2,763	.52

Six petitions (two county and four town), in five towns.

Average distance petitioned for, 19,954 feet (3.78 miles).

Fifteen lay-outs, in four towns.

Laid out on county petitions, 20,657 feet (3.91 miles).

Laid out on town petitions, 25,194 feet (4.77 miles).

Total length laid out, 45,851 feet (8.68 miles); average, 3,057 feet (.58 mile).

Percentage of length laid out to length petitioned for, 38.29.

<sup>1</sup> On county petition.

<sup>2</sup> Edgartown road.

<sup>3</sup> Vineyard Haven road.

<sup>4</sup> See Cottage City and Edgartown.

<sup>5</sup> See Cottage City and Tisbury.

<sup>6</sup> Gay Head road.

<sup>7</sup> Cottage City road.

<sup>8</sup> Relocation.

*Essex County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Amesbury, . . .	203	July 22, 1895,	27,997	5.30	2,674	.51	2,302	.44
Andover, <sup>1</sup> . . .	20	July 6, 1894,	31,400	5.95	16,186	3.06	-	-
Andover, <sup>2,3</sup> . . .	436	- -	-	-	-	-	-	-
Andover, <sup>4</sup> . . .	442	Dec. 18, 1898,	25,080	4.75	-	-	-	-
Andover, <sup>5</sup> . . .	443	Dec. 18, 1898,	21,750	4.12	-	-	-	-
Beverly, <sup>2</sup> . . .	64	- -	18,900	2.64	10,613	2.01	-	-
Boxford, . . .	395	Dec. 23, 1897,	25,125	4.76	-	-	-	-
Danvers, <sup>6</sup> . . .	351	June 29, 1897,	6,267	1.19	-	-	-	-
Danvers, <sup>7</sup> . . .	490	Apr. 11, 1900,	27,450	5.20	-	-	-	-
Danvers, <sup>8</sup> . . .	534	Mar. 28, 1901,	15,840	3.00	-	-	-	-
Danvers, <sup>9</sup> . . .	535	Mar. 28, 1901,	15,840	3.00	-	-	-	-
Essex, . . .	364	Aug. 3, 1897,	22,412	4.25	-	-	-	-
Essex County, <sup>10</sup> . . .	64	July 30, 1894,	-	-	-	-	-	-
Essex County, <sup>11</sup> . . .	436	Oct. 26, 1898,	-	-	-	-	-	-
Georgetown, . . .	390	Dec. 16, 1897,	16,800	3.18	-	-	-	-
Gloucester, <sup>12</sup> . . .	28	July 10, 1894,	9,650	1.83	9,650	1.83	-	-
Gloucester, <sup>13</sup> . . .	110	Jan. 1, 1895,	54,120	10.25	-	-	-	-
Gloucester, <sup>13</sup> . . .	380	Apr. 5, 1897,	8,550	1.62	3,446	.65	-	-
Groveland, . . .	211	Aug. 8, 1895,	23,948	4.53	2,968	.56	1,129	.21
Hamilton, <sup>2</sup> . . .	64	- -	18,100	3.43	7,607	1.44	-	-
Haverhill, <sup>14</sup> . . .	297	Nov. 4, 1896,	13,888	2.63	10,964	2.08	-	-
Haverhill, <sup>15</sup> . . .	471	June 1, 1899,	15,840	3.00	-	-	-	-
Ipswich, <sup>1,16</sup> . . .	64	- -	12,330	2.34	-	-	-	-
Ipswich, <sup>17</sup> . . .	239	Apr. 4, 1896,	11,900	2.25	-	-	-	-
Lawrence, <sup>18</sup> . . .	76	Aug. 2, 1894,	2,640	.50	-	-	-	-
Lawrence, <sup>19</sup> . . .	245	May 4, 1896,	4,660	.88	-	-	-	-
Lawrence, <sup>18</sup> . . .	284	Aug. 26, 1896,	2,300	.44	-	-	-	-
Lawrence, <sup>20</sup> . . .	285	Aug. 25, 1896,	1,750	.33	-	-	-	-
Lawrence, <sup>21</sup> . . .	290	Sept. 11, 1896,	1,408	.27	1,408	.27	-	-
Lawrence, <sup>2,23</sup> . . .	436	- -	7,920	1.50	-	-	-	-
Lawrence, <sup>23</sup> . . .	460	Mar. 16, 1899,	1,800	.34	-	-	-	-
Lawrence, <sup>24</sup> . . .	521	Feb. 9, 1901,	1,984	.38	-	-	-	-
Lynn, . . .	342	May 20, 1897,	9,120	1.73	4,777	.90	-	-
Manchester, . . .	167	May 1, 1895,	5,280	1.00	-	-	-	-
Merrimac, . . .	204	July 26, 1895,	15,134	2.87	4,838	.92	3,400	.64

<sup>1</sup> Boston-Lawrence road.<sup>2</sup> On county petition.<sup>3</sup> Lowell-Lawrence road.<sup>4</sup> Tewksbury road to Frye village.<sup>5</sup> Duplicate of county petition.<sup>6</sup> Sylvan Street.<sup>7</sup> Locust, Maple, High and Water streets.<sup>8</sup> Andover Street.<sup>9</sup> Maple Street.<sup>10</sup> See Beverly, Wenham, Hamilton and Ipswich.<sup>11</sup> See Andover and Lawrence.<sup>12</sup> Western Avenue.<sup>13</sup> Essex Avenue, Washington Street and Rockport road.<sup>14</sup> Haverhill-Lawrence road.<sup>15</sup> Newton road.<sup>16</sup> South of arch bridge, Newburyport road.<sup>17</sup> North of arch bridge, Newburyport road.<sup>18</sup> Haverhill Street.<sup>19</sup> South Broadway.<sup>20</sup> Prospect Street.<sup>21</sup> Jackson Street.<sup>22</sup> Lowell road, south.<sup>23</sup> Loring Street.<sup>24</sup> Barker Street.

*Essex County—Concluded.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Methuen, <sup>1</sup>	287	Aug. 31, 1896,	5,400	1.02	5,478	1.04	-	-
Methuen, <sup>2</sup>	387	Dec. 8, 1897,	5,300	1.00	-	-	-	-
Methuen, <sup>3</sup>	481	Jan. 22, 1900,	13,200	2.50	3,300	.63	2,750	.52
Methuen, <sup>4</sup>	520	Feb. 8, 1901,	3,500	.66	-	-	-	-
Middleton, <sup>4</sup>	347	July 12, 1897,	26,501	5.02	-	-	-	-
Middleton, <sup>5</sup>	531	Mar. 7, 1901,	10,560	2.00	-	-	-	-
Newbury, <sup>6</sup>	197	July 2, 1895,	22,388	4.24	6,453	1.22	4,627	.88
Newbury, <sup>7</sup>	410	Mar. 7, 1898,	23,133	4.38	-	-	-	-
Newburyport, <sup>8</sup>	196	July 1, 1895,	10,100	1.91	9,259	1.75	-	-
Newburyport, <sup>7</sup>	417	Apr. 22, 1898,	2,700	.51	-	-	-	-
North Andover, <sup>9</sup>	272	July 1, 1896,	10,186	1.93	4,175	.79	-	-
North Andover, <sup>10</sup>	522	Feb. 11, 1901,	27,192	5.16	-	-	-	-
Peabody, <sup>11</sup>	352	July 1, 1897,	12,120	2.30	-	-	-	-
Peabody, <sup>12</sup>	353	July 1, 1897,	5,380	1.02	-	-	-	-
Rockport,	135	Feb. 23, 1895,	5,736	1.08	-	-	-	-
Rowley,	242	Apr. 23, 1896,	19,280	3.65	-	-	-	-
Salem,	474	June 18, 1899,	700	.13	-	-	700	.13
Salisbury, <sup>13</sup>	243	Apr. 27, 1896,	10,560	2.00	-	-	-	-
Salisbury, <sup>14</sup>	405	Feb. 11, 1898,	11,500	2.18	-	-	-	-
Salisbury, <sup>15</sup>	540	Apr. 25, 1901,	13,728	2.60	-	-	-	-
Saugus,	34	July 11, 1894,	8,811	1.67	8,444	1.60	-	-
Swampscott,	375	Oct. 14, 1897,	8,780	1.66	7,576	1.43	294	.06
Topsfield, <sup>16</sup>	383	Nov. 27, 1897,	26,031	4.93	-	-	-	-
Topsfield, <sup>16</sup>	491	Apr. 11, 1900,	11,100	2.10	-	-	-	-
Topsfield, <sup>17</sup>	497	June 4, 1900,	7,920	1.50	-	-	-	-
Wenham, <sup>18</sup>	64	-	9,100	1.72	3,194	.61	2,700	.51
West Newbury, <sup>8</sup>	101	Nov. 26, 1894,	27,017	5.11	11,731	2.22	-	-
West Newbury, <sup>10</sup>	206	July 25, 1895,	4,000	.76	-	-	-	-
Totals,	.	.	814,106	154.19	134,741	25.52	17,902	3.39

Fifty-seven petitions (two county, sixteen city and thirty-nine town), in seven cities and twenty-four towns.

Average distance petitioned for, 14,283 feet (2.71 miles).

Forty-five lay-outs, in seven cities and twelve towns.

Laid out on county petitions, 24,114 feet (4.57 miles).

Laid out on city petitions, 40,204 feet (7.61 miles).

Laid out on town petitions, 88,325 feet (16.73 miles).

Total length laid out, 152,643 feet (28.91 miles); average, 3,392 feet (.64 mile).

Percentage of length laid out to length petitioned for, 18.75.

<sup>1</sup> Haverhill-Lawrence road.

<sup>2</sup> Lowell road.

<sup>3</sup> Woodland Street.

<sup>4</sup> Main Street.

<sup>5</sup> Maple Street.

<sup>6</sup> Newburyport road, *via* Oldtown.

<sup>7</sup> Newburyport road, *via* turnpike.

<sup>8</sup> Haverhill-Newburyport road.

<sup>9</sup> Lawrence Street.

<sup>10</sup> Salem Street.

<sup>11</sup> From Lynn line, Washington and Lynn streets.

<sup>12</sup> From Danvers line, Sylvan and Danvers streets.

<sup>13</sup> Newburyport-New Hampshire road.

<sup>14</sup> Haverhill road.

<sup>15</sup> Salem, Boston, Main and Haverhill streets.

<sup>16</sup> Central and Wenham streets.

<sup>17</sup> Grove, Washington and Boxford streets.

<sup>18</sup> On county petition.

<sup>19</sup> Proposed relocation.

## Franklin County.

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Ashfield, <sup>1</sup>	195	June 26, 1895,	5,300	1.00	-	-	-	-
Ashfield, <sup>2</sup>	387	Sept. 18, 1897,	8,900	1.70	8,492	1.61	-	-
Ashfield, <sup>1</sup>	464	Jan. 10, 1899,	5,200	.99	-	-	-	-
Ashfield, <sup>1</sup>	464	May 1, 1899,	5,280	1.00	-	-	-	-
Buckland, <sup>3</sup>	38	July 14, 1894,	1,170	.22	796	.15	-	-
Buckland, <sup>4</sup>	112	Jan. 6, 1895,	5,280	1.00	5,308	1.01	-	-
Buckland, <sup>4</sup>	224	Dec. 28, 1895,	5,280	1.00	5,325	1.01	-	-
Buckland, <sup>4</sup>	815	Feb. 15, 1896,	5,280	1.00	5,274	1.00	-	-
Buckland, <sup>4</sup>	468	Mar. 9, 1899,	17,160	3.25	1,744	.33	-	-
Charlemont, <sup>5</sup>	120	Jan. 18, 1895,	7,500	1.42	3,366	.64	-	-
Charlemont, <sup>1</sup>	460	Dec. 24, 1898,	34,320	6.50	693	.13	-	-
Colrain, <sup>1,3</sup>	43	July 17, 1894,	-	-	-	-	-	-
Colrain, <sup>1</sup>	133	Feb. 20, 1895,	12,438	2.36	5,679	1.08	3,985	.75
Colrain, <sup>1</sup>	432	Aug. 2, 1898,	13,500	2.56	-	-	-	-
Conway, <sup>1</sup>	215	Sept. 4, 1895,	14,147	2.68	-	-	-	-
Deerfield, <sup>6,7</sup>	24	-	9,400	1.79	8,093	1.53	-	-
Deerfield, <sup>8</sup>	329	Mar. 10, 1897,	87,288	7.06	2,300	.44	1,979	.37
Erving,	152	Mar. 29, 1895,	10,717	2.03	10,791	2.04	-	-
Franklin County, <sup>9</sup>	24	July 9, 1894,	-	-	-	-	-	-
Gill,	130	Feb. 7, 1895,	10,520	1.99	-	-	-	-
Greenfield, <sup>10</sup>	188	June 10, 1895,	23,700	4.49	-	-	-	-
Greenfield, <sup>11</sup>	332	Mar. 23, 1897,	6,722	1.27	3,100	.59	-	-
Greenfield, <sup>12</sup>	897	Dec. 23, 1897,	5,300	1.00	-	-	-	-
Greenfield, <sup>13</sup>	466	Feb. 2, 1899,	4,680	.89	-	-	-	-
Greenfield, <sup>13</sup>	457	Feb. 2, 1899,	8,550	1.62	2,116	.40	-	-
Montague, <sup>14</sup>	304	Dec. 18, 1896,	10,560	2.00	-	-	-	-
Montague, <sup>15</sup>	359	July 11, 1897,	6,587	1.25	5,761	1.09	-	-
Montague, <sup>16</sup>	360	July 11, 1897,	8,305	1.57	-	-	-	-
Montague, <sup>17</sup>	453	Jan. 3, 1899,	4,000	.76	2,855	.54	-	-
Montague, <sup>18</sup>	498	June 5, 1900,	16,050	3.04	-	-	-	-
Montague, <sup>18</sup>	553	June 25, 1901,	5,280	1.00	-	-	-	-
New Salem,	258	June 8, 1896,	27,329	5.18	-	-	-	-
Northfield, <sup>19</sup>	422	June 8, 1898,	-	-	-	-	-	-
Northfield, <sup>19</sup>	489	Apr. 2, 1900,	38,280	7.25	-	-	3,300	.63
Orange, <sup>3</sup>	6	July 2, 1894,	80,559	5.74	13,739	2.60	2,144	.41
Orange, <sup>3,20</sup>	103	Dec. 10, 1894,	-	-	-	-	-	-
Orange, <sup>3,20</sup>	301	Nov. 27, 1896,	-	-	-	-	-	-
Shelburne, <sup>21</sup>	35	July 11, 1894,	12,138	2.30	11,398	2.16	-	-
Shelburne, <sup>22</sup>	227	Jan. 13, 1896,	5,280	1.00	-	-	-	-
Sunderland, <sup>23</sup>	52	July 24, 1894,	4,151	.80	992	.19	-	-
Sunderland, <sup>23</sup>	402	Jan. 11, 1898,	5,280	1.00	-	-	-	-
Sunderland, <sup>24</sup>	541	Apr. 26, 1901,	11,880	2.25	-	-	-	-
Whately, <sup>3,25</sup>	325	Feb. 28, 1897,	6,400	1.03	-	-	-	-
Whately, <sup>3,26</sup>	408	Feb. 11, 1898,	5,300	1.00	4,122	.78	801	.15
Whately, <sup>3</sup>	530	Mar. 2, 1901,	13,042	2.47	-	-	1,799	.34
Totals,			487,053	88.46	101,944	19.31	14,008	2.65

Forty-four petitions (one county and forty-three town), in sixteen towns.

Average distance petitioned for, 10,615 feet (2.01 miles).

Forty-three lay-outs, in thirteen towns.

Laid out on county petitions, 47,953 feet (9.08 miles).

Laid out on town petitions, 67,999 feet (12.88 miles).

Total length laid out, 115,952 feet (21.96 miles); average, 2,697 feet (.51 mile).

Percentage of length laid out to length petitioned for, 24.83.

<sup>1</sup> Shelburne Falls road.

<sup>2</sup> Relocation.

<sup>3</sup> Duplicate of county petition.

<sup>4</sup> Ashfield road.

<sup>5</sup> In part mine road to Rowe.

<sup>6</sup> On county petition.

<sup>7</sup> Sunderland road.

<sup>8</sup> Greenfield-Northampton road.

<sup>9</sup> See Buckland, Colrain, Deerfield, Erving, Orange, Shelburne and Sunderland.

<sup>10</sup> Bernardston road.

<sup>11</sup> Deerfield road.

<sup>12</sup> Turner's Falls road.

<sup>13</sup> Montague City road.

<sup>14</sup> Miller's Falls, *via* ferry road.

<sup>15</sup> Miller's Falls, *via* pipe line.

<sup>16</sup> Miller's Falls, *via* L Street.

<sup>17</sup> Third and Prospect streets.

<sup>18</sup> Miller's Falls road.

<sup>19</sup> Covered by subsequent petition.

<sup>20</sup> Covered by previous petition.

<sup>21</sup> Colrain road.

<sup>22</sup> Greenfield road.

<sup>23</sup> Sunderland Street.

<sup>24</sup> Amherst road.

<sup>25</sup> From Hatfield line.

<sup>26</sup> From Deerfield line.

*Hampden County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Agawam, . . . . .	488	Apr. 2, 1900,	15,509	2.94	-	-	-	-
Blandford, <sup>1</sup> . . . . .	216	Sept. 7, 1895,	13,377	2.54	-	-	-	-
Blandford, <sup>2</sup> . . . . .	321	Feb. 23, 1897,	18,858	2.63	-	-	-	-
Brimfield, <sup>3</sup> . . . . .	40	July 6, 1894,	61,615	11.67	12,345	2.34	6,309	1.19
Brimfield, <sup>4,5</sup> . . . . .	131	-	9,355	1.77	-	-	-	-
Chester, <sup>6,7</sup> . . . . .	104	Dec. 11, 1894,	-	-	-	-	-	-
Chester, <sup>8,9</sup> . . . . .	426	June 23, 1898,	-	-	-	-	-	-
Chester, <sup>9</sup> . . . . .	441	Dec. 16, 1898,	34,950	6.62	3,472	.66	2,578	.49
Chicopee, . . . . .	223	Dec. 28, 1895,	5,700	1.08	4,847	.92	-	-
East Longmeadow, . . . . .	202	July 11, 1895,	25,426	4.82	-	-	-	-
Granville, . . . . .	87	Sept. 6, 1894,	12,848	2.44	-	-	-	-
Hampden, . . . . .	201	July 11, 1895,	18,031	3.42	-	-	-	-
Hampden County, <sup>8</sup> . . . . .	19	July 6, 1894,	-	-	-	-	-	-
Hampden County, <sup>9</sup> . . . . .	131	Feb. 12, 1895,	-	-	-	-	-	-
Hampden County, <sup>10</sup> . . . . .	241	Apr. 23, 1896,	-	-	-	-	-	-
Hampden County, <sup>11</sup> . . . . .	273	July 3, 1896,	-	-	-	-	-	-
Holyoke, <sup>4</sup> . . . . .	273	-	5,300	1.00	-	-	-	-
Longmeadow, . . . . .	333	Mar. 24, 1897,	5,400	1.02	-	-	-	-
Ludlow, . . . . .	236	Mar. 11, 1896,	14,813	2.80	-	-	-	-
Monson, <sup>12</sup> . . . . .	57	July 26, 1894,	14,960	2.83	4,933	.93	-	-
Monson, <sup>4,5</sup> . . . . .	131	-	6,925	1.31	-	-	-	-
Monson, <sup>13</sup> . . . . .	502	Oct. 1, 1900,	1,760	.33	-	-	529	.10
Palmer, <sup>4</sup> . . . . .	131	-	46,034	8.72	8,350	1.68	4,241	.80
Palmer, <sup>13</sup> . . . . .	506	Nov. 27, 1900,	675	.13	-	-	675	.13
Palmer, <sup>14</sup> . . . . .	556	Oct. 21, 1901,	1,000	.19	-	-	-	-
Russell, <sup>4</sup> . . . . .	19	-	35,380	6.70	35,189	6.66	-	-
Southwick, . . . . .	545	May 2, 1901,	14,520	2.75	-	-	-	-
Wales, . . . . .	41	July 16, 1894,	35,922	6.80	-	-	5,493	1.04
Westfield, <sup>4</sup> . . . . .	19	-	40,900	7.75	21,593	4.09	4,334	.82
West Springfield, <sup>15</sup> . . . . .	113	Jan. 8, 1895,	24,200	4.58	8,054	1.53	-	-
West Springfield, <sup>4</sup> . . . . .	241	-	5,708	1.08	-	-	-	-
Wilbraham, <sup>4</sup> . . . . .	131	-	27,750	5.26	5,998	1.14	4,614	.88
Wilbraham, <sup>16</sup> . . . . .	247	May 8, 1896,	4,117	.77	4,140	.78	-	-
Totals, . . . . .	.	.	496,033	93.95	108,921	20.63	28,773	5.45

Twenty-five petitions (four county, one city and twenty town), in two cities and seventeen towns.

Average distance petitioned for, 19,841 feet (3.76 miles).

Forty-five lay-outs, in one city and nine towns.

Laid out on county petitions, 91,397 feet (17.31 miles).

Laid out on city petitions, 4,847 feet (.92 mile).

Laid out on town petitions, 41,450 feet (7.85 miles).

Total length laid out, 137,694 feet (26.08 miles); average, 3,060 feet (.58 mile).

Percentage of length laid out to length petitioned for, 27.76.

<sup>1</sup> Huntington road.

<sup>2</sup> Russell road.

<sup>3</sup> Road to Brimfield Centre and Wales.

<sup>4</sup> On county petition.

<sup>5</sup> River road.

<sup>6</sup> Springfield-Pittsfield road.

<sup>7</sup> Covered by subsequent petition.

<sup>8</sup> See Russell, Westfield and West Springfield.

<sup>9</sup> See Wilbraham, Monson, Palmer and Brimfield.

<sup>10</sup> See West Springfield, Agawam road.

<sup>11</sup> See Holyoke.

<sup>12</sup> Palmer road.

<sup>13</sup> Brimfield road.

<sup>14</sup> Commercial Street.

<sup>15</sup> Duplicate of county petition.

<sup>16</sup> Relocation.

*Hampshire County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Amherst, <sup>1</sup>	181	May 18, 1895,	5,356	1.02	-	-	5,035	.95
Amherst, <sup>2</sup>	550	June 10, 1901,	18,480	3.50	-	-	-	-
Belchertown, <sup>3</sup>	220	Nov. 18, 1895,	5,280	1.00	3,509	.66	1,050	.20
Belchertown, <sup>3</sup>	282	Aug. 6, 1896,	5,280	1.00	-	-	2,141	.41
Belchertown, <sup>4</sup>	461	Mar. 16, 1899,	2,640	.50	-	-	-	-
Belchertown, <sup>3</sup>	512	Jan. 9, 1901,	4,488	.85	-	-	-	-
Belchertown, <sup>5</sup>	529	Mar. 12, 1901,	15,840	3.00	-	-	-	-
Chesterfield, <sup>6</sup>	128	Feb. 6, 1895,	3,067	.58	-	-	-	-
Cummington, <sup>6</sup>	27	July 10, 1894,	55,053	10.43	-	-	-	-
Easthampton, <sup>7</sup>	114	Jan. 10, 1895,	5,900	1.12	4,200	.80	1,600	.30
Easthampton, <sup>7, 6</sup>	189	July 10, 1895,	7,500	1.42	6,963	1.32	-	-
Enfield, <sup>8</sup>	283	Aug. 25, 1896,	-	-	-	-	-	-
Enfield,	524	Feb. 12, 1901,	23,760	4.50	-	-	-	-
Goshen,	2	June 28, 1894,	29,480	5.58	10,058	1.91	-	-
Granby, <sup>9, 10</sup>	5	-	3,347	.63	3,347	.63	-	-
Granby, <sup>9</sup>	289	Sept. 9, 1896,	10,700	2.03	-	-	-	-
Granby, <sup>11</sup>	536	Apr. 2, 1901,	17,160	3.25	-	-	-	-
Greenwich,	295	Oct. 17, 1896,	5,464	1.04	-	-	-	-
Hadley, <sup>1, 6</sup>	94	Oct. 20, 1894,	5,673	1.08	5,676	1.08	-	-
Hadley, <sup>1</sup>	200	July 11, 1895,	4,133	.78	4,133	.78	-	-
Hadley, <sup>1</sup>	286	Aug. 27, 1896,	14,749	2.79	5,651	1.07	-	-
Hampshire County, <sup>12</sup>	5	June 29, 1894,	-	-	-	-	-	-
Hatfield, <sup>13</sup>	165	Apr. 23, 1895,	5,280	1.00	-	-	-	-
Hatfield, <sup>14</sup>	164	Apr. 23, 1895,	2,500	.47	-	-	2,050	.39
Huntington,	99	Nov. 24, 1894,	14,408	2.73	5,336	1.01	-	-
Huntfield,	177	May 14, 1895,	5,400	1.03	-	-	-	-
Northampton, <sup>5, 15</sup>	97	July 31, 1894,	2,997	.56	2,997	.56	-	-
Northampton, <sup>5, 16</sup>	194	June 25, 1895,	9,235	1.75	5,892	1.12	-	-
Northampton, <sup>17</sup>	470	May 27, 1899,	4,500	.85	-	-	-	-
South Hadley, <sup>9, 10</sup>	5	-	15,571	2.95	12,775	2.42	-	-
South Hadley, <sup>9, 9</sup>	288	Sept. 3, 1896,	-	-	-	-	-	-
South Hadley, <sup>18</sup>	517	Jan. 22, 1901,	9,240	1.75	-	-	-	-
Southampton,	253	May 25, 1896,	5,280	1.00	-	-	-	-
Ware, <sup>19</sup>	205	July 29, 1895,	4,100	.78	4,100	.78	-	-
Ware, <sup>19</sup>	455	Feb. 2, 1899,	10,300	1.95	5,400	1.02	-	-
Ware, <sup>20</sup>	519	Feb. 5, 1901,	15,048	2.85	-	-	-	-
Ware, <sup>5</sup>	525	Feb. 12, 1901,	26,400	5.00	-	-	-	-
Williamsburg, <sup>10</sup>	5	-	31,743	6.01	3,100	.58	2,040	.39
Williamsburg, <sup>5, 21</sup>	129	Feb. 6, 1895,	-	-	-	-	-	-
Williamsburg, <sup>5, 22</sup>	249	May 11, 1896,	-	-	-	-	-	-
Williamsburg, <sup>23</sup>	411	Mar. 17, 1898,	6,036	1.14	6,036	1.14	-	-
Williamsburg, <sup>5, 22</sup>	439	Dec. 12, 1898,	-	-	-	-	-	-
Totals,			411,388	77.91	89,173	16.89	13,916	2.64

Thirty-nine petitions (one county, three city and thirty-five town), in one city and seventeen towns.

Average distance petitioned for, 10,548 feet (2.00 miles).

Forty lay-outs, in one city and eleven towns.

Laid out on county petitions, 50,808 feet (9.62 miles).

Laid out on city petitions, 2,997 feet (.56 mile).

Laid out on town petitions, 49,284 feet (9.34 miles).

Total length laid out, 103,089 feet (19.53 miles); average, 2,577 feet (.49 mile).

Percentage of length laid out to length petitioned for, 25.07.

<sup>1</sup> Northampton road.

<sup>2</sup> Sunderland road.

<sup>3</sup> Granby road.

<sup>4</sup> Depot road.

<sup>5</sup> Enfield road.

<sup>6</sup> Duplicate of county petition.

<sup>7</sup> Holyoke Street.

<sup>8</sup> Covered by subsequent petition.

<sup>9</sup> Holyoke road.

<sup>10</sup> On county petition.

<sup>11</sup> Belchertown road.

<sup>12</sup> See Chesterfield, Cummington, Easthampton, Granby, Goshen, Hadley, Northampton, South Hadley and Williamsburg.

<sup>13</sup> Road to Hatfield village.

<sup>14</sup> North Hatfield road.

<sup>15</sup> Bridge Street.

<sup>16</sup> Easthampton road.

<sup>17</sup> Smith's ferry road.

<sup>18</sup> Newton Street.

<sup>19</sup> Gilbertville road.

<sup>20</sup> Palmer road.

<sup>21</sup> Chesterfield road.

<sup>22</sup> Goshen road.

<sup>23</sup> Relocation.



*Middlesex County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
Acton, <sup>1</sup> . . . .	119	Jan. 7, 1895,	6,563	1.24	-	-	-	-
Acton, <sup>1</sup> . . . .	138	Feb. 28, 1895,	12,129	2.30	-	-	-	-
Acton, <sup>2,3</sup> . . . .	233	-	21,922	4.15	-	-	3,800	.72
Acton, <sup>3,4</sup> . . . .	413	-	24,500	4.64	14,700	2.78	3,407	.64
Ashby, . . . .	1	June 27, 1894,	18,625	3.53	18,826	3.57	-	-
Ashland, <sup>5</sup> . . . .	361	July 24, 1897,	11,843	2.24	-	-	-	-
Ashland, <sup>6</sup> . . . .	362	July 24, 1897,	9,112	1.73	-	-	-	-
Ashland, <sup>7</sup> . . . .	500	June 21, 1900,	6,600	1.25	-	-	-	-
Ayer, . . . .	225	Jan. 1, 1896,	14,246	2.70	-	-	-	-
Bedford, . . . .	175	May 14, 1895,	19,685	3.72	2,872	.54	-	-
Belmont, . . . .	343	May 21, 1897,	5,109	.97	-	-	-	-
Billerica, . . . .	264	June 18, 1896,	18,490	3.50	-	-	-	-
Boxborough, <sup>2,3</sup> . . . .	233	-	17,500	3.31	7,200	1.36	-	-
Burlington, <sup>8</sup> . . . .	336	Apr. 16, 1897,	14,205	2.69	-	-	-	-
Burlington, <sup>9</sup> . . . .	582	Mar. 13, 1901,	20,692	3.90	-	-	-	-
Carlisle, . . . .	109	Dec. 26, 1894,	26,381	4.99	-	-	-	-
Chelmsford, <sup>10,11</sup> . . . .	50	July 20, 1894,	5,583	1.06	-	-	-	-
Chelmsford, <sup>3,11</sup> . . . .	266	-	6,100	1.16	4,908	.93	1,186	.23
Chelmsford, <sup>12</sup> . . . .	467	May 24, 1899,	6,600	1.25	-	-	-	-
Chelmsford, <sup>13</sup> . . . .	468	May 24, 1899,	9,240	1.75	-	-	-	-
Chelmsford, <sup>14</sup> . . . .	518	Jan. 31, 1901,	6,600	1.25	-	-	1,500	.28
Chelmsford, <sup>15</sup> . . . .	539	Apr. 22, 1901,	9,240	1.75	-	-	-	-
Concord, <sup>16</sup> . . . .	81	Sept. 11, 1894,	10,898	1.97	7,719	1.46	-	-
Concord, <sup>4,10</sup> . . . .	388	Dec. 7, 1897,	3,800	.72	2,786	.53	-	-
Concord, <sup>17</sup> . . . .	487	Mar. 28, 1900,	8,282	1.57	-	-	-	-
Dracut, <sup>18</sup> . . . .	344	June 8, 1897,	21,378	4.05	-	-	-	-
Dracut, <sup>19</sup> . . . .	473	June 8, 1899,	17,234	3.26	-	-	-	-
Dunstable, . . . .	291	Sept. 17, 1896,	8,778	1.66	-	-	-	-
Frammingham, <sup>20</sup> . . . .	303	Dec. 17, 1896,	8,296	1.57	-	-	-	-
Frammingham, <sup>21</sup> . . . .	492	Apr. 20, 1900,	17,420	3.30	-	-	-	-
Groton, <sup>22</sup> . . . .	105	Dec. 17, 1894,	40,215	7.62	-	-	-	-
Groton, <sup>4,30</sup> . . . .	219	Nov. 14, 1895,	22,597	4.28	-	-	-	-
Groton, <sup>4,23</sup> . . . .	551	June 10, 1901,	6,600	1.25	-	-	2,846	.54
Holliston, . . . .	363	July 30, 1897,	33,480	6.34	-	-	-	-
Hopkinton, . . . .	309	Jan. 6, 1897,	20,440	3.87	-	-	-	-
Hudson, . . . .	370	Sept. 25, 1897,	31,057	5.88	-	-	-	-
Lexington, <sup>16</sup> . . . .	79	Aug. 8, 1894,	18,300	3.46	18,214	3.45	-	-
Lexington, <sup>24</sup> . . . .	419	May 14, 1898,	13,200	2.50	4,462	.85	-	-
Lincoln, <sup>16</sup> . . . .	80	Aug. 8, 1894,	10,850	2.06	10,885	2.07	-	-

<sup>1</sup> Littleton road, via North Acton.<sup>2</sup> Harvard turnpike.<sup>3</sup> On county petition.<sup>4</sup> Great road.<sup>5</sup> Southborough road.<sup>6</sup> Pond Street.<sup>7</sup> Frammingham road.<sup>8</sup> Lowell turnpike.<sup>9</sup> Cambridge and Lowell streets.<sup>10</sup> Duplicate of county petition.<sup>11</sup> Truant school road.<sup>12</sup> Tyngsborough road, west.<sup>13</sup> Billerica road.<sup>14</sup> Tyngsborough road, east.<sup>15</sup> Lowell road from Chelmsford Centre.<sup>16</sup> Lexington-Concord road.<sup>17</sup> Elm Street.<sup>18</sup> North road to Methuen.<sup>19</sup> River road, new location.<sup>20</sup> Concord Street.<sup>21</sup> Ashland-Natick road.<sup>22</sup> Lowell-Fitchburg road.<sup>23</sup> From Pepperell line.<sup>24</sup> Bedford road.

*Middlesex County — Continued.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Lincoln, <sup>1</sup> . . . .	377	Aug. 30, 1897,	17,800	3.37	-	-	-	-
Littleton, <sup>2</sup> . . . .	218	Nov. 14, 1895,	12,110	2.29	-	-	-	-
Littleton, <sup>3,4</sup> . . . .	412	-	10,200	1.93	-	-	-	-
Littleton, <sup>3,5</sup> . . . .	413	-	27,800	5.27	-	-	-	-
Lowell, <sup>5,6</sup> . . . .	44	-	5,230	.99	5,115	.97	-	-
Lowell, <sup>7,8</sup> . . . .	55	July 25, 1894,	7,062	1.34	7,045	1.34	-	-
Lowell, <sup>9</sup> . . . .	409	Mar. 9, 1898,	5,800	1.10	-	-	-	-
Marlborough, <sup>10</sup> . . . .	143	Mar. 15, 1895,	12,868	2.44	9,000	1.70	3,700	.70
Marlborough, <sup>11</sup> . . . .	271	June 26, 1896,	17,835	3.38	2,142	.41	-	-
Maynard, . . . .	366	Sept. 9, 1897,	11,164	2.11	-	-	-	-
Medford, <sup>12,7</sup> . . . .	265	June 13, 1896,	4,918	.93	-	-	-	-
Medford, <sup>13</sup> . . . .	446	Dec. 19, 1898,	4,200	.80	-	-	-	-
Melrose, . . . .	485	Mar. 8, 1900,	5,966	1.13	-	-	-	-
Middlesex County, <sup>13</sup> . . . .	44	July 17, 1894,	-	-	-	-	-	-
Middlesex County, <sup>8,14</sup> . . . .	45	July 17, 1894,	-	-	-	-	-	-
Middlesex County, <sup>15,16</sup> . . . .	233	Feb. 25, 1896,	-	-	-	-	-	-
Middlesex County, <sup>8,14</sup> . . . .	266	June 15, 1896,	-	-	-	-	-	-
Middlesex County, <sup>13</sup> . . . .	274	July 13, 1896,	-	-	-	-	-	-
Middlesex County, <sup>3</sup> . . . .	412	Feb. 3, 1898,	-	-	-	-	-	-
Middlesex County, <sup>5,17</sup> . . . .	413	Feb. 3, 1898,	-	-	-	-	-	-
Middlesex County, <sup>18</sup> . . . .	427	June 25, 1898,	-	-	-	-	-	-
Middlesex County, <sup>19</sup> . . . .	494	May 8, 1900,	-	-	-	-	-	-
Middlesex County, <sup>20</sup> . . . .	503	Oct. 19, 1900,	-	-	-	-	-	-
Middlesex County, <sup>21</sup> . . . .	558	Nov. 11, 1901,	-	-	-	-	-	-
Natick, <sup>22</sup> . . . .	251	May 21, 1896,	6,813	1.29	-	-	-	-
Natick, <sup>23</sup> . . . .	493	May 8, 1900,	17,160	3.25	-	-	5,995	1.14
Newton, <sup>24</sup> . . . .	337	Apr. 26, 1897,	780	.15	-	-	-	-
Newton, <sup>25</sup> . . . .	477	Nov. 1, 1899,	5,500	1.04	-	-	5,449	1.03
North Reading, . . . .	107	Dec. 24, 1894,	31,060	5.88	5,329	1.01	3,971	.75
Pepperell, . . . .	299	Nov. 11, 1896,	18,700	3.54	-	-	-	-
Reading, . . . .	157	Apr. 10, 1895,	23,100	4.38	5,650	1.07	-	-
Sherborn, . . . .	250	May 14, 1896,	5,500	1.04	-	-	-	-
Shirley, . . . .	416	Apr. 21, 1898,	7,400	1.40	-	-	-	-
Stoneham, <sup>7,12</sup> . . . .	280	July 30, 1896,	3,086	.59	3,006	.57	-	-
Stoneham, <sup>26</sup> . . . .	355	July 7, 1897,	6,448	1.22	3,800	.62	2,050	.39
Stow, . . . .	378	Nov. 1, 1897,	24,215	4.59	-	-	-	-
Sudbury, <sup>27</sup> . . . .	214	Aug. 24, 1895,	5,300	1.00	-	-	-	-
Sudbury, <sup>27</sup> . . . .	230	Feb. 16, 1896,	20,400	3.86	7,953	1.50	11,748	2.22

<sup>1</sup> South Great road.<sup>2</sup> Littleton Depot to Great road.<sup>3</sup> On county petition.<sup>4</sup> Ayer road.<sup>5</sup> Great road.<sup>6</sup> Tyngsborough road, boulevard.<sup>7</sup> Duplicate of county petition.<sup>8</sup> Truant school road.<sup>9</sup> First Street to Dracut.<sup>10</sup> Northborough road.<sup>11</sup> Sudbury road.<sup>12</sup> Medford-Stoneham road.<sup>13</sup> See Lowell and Tyngsborough.<sup>14</sup> See Lowell and Chelmsford.<sup>15</sup> Harvard turnpike.<sup>16</sup> See Buxborough and Acton.<sup>17</sup> See Concord, Acton, Littleton and Groton.<sup>18</sup> See Tewksbury.<sup>19</sup> See Natick.<sup>20</sup> See Westford.<sup>21</sup> See Hopkinton.<sup>22</sup> Sherborn road.<sup>23</sup> Central Street.<sup>24</sup> At Weston bridge.<sup>25</sup> Winchester and Needham streets.<sup>26</sup> From Reading line.<sup>27</sup> Boston-Worcester road.

*Middlesex County — Concluded.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
					1894-1900.		1901.	
			Feet.	Miles.	Feet.	Miles.	Feet.	Miles.
Tewksbury, <sup>1</sup> . . .	257	June 5, 1896,	14,700	2.78	3,000	.57	2,900	.55
Tewksbury, <sup>1</sup> . . .	357	July 8, 1897,	20,188	3.82	-	-	-	-
Tewksbury, <sup>2,3</sup> . . .	427	-	11,088	2.10	-	-	-	-
Townsend, <sup>4</sup> . . .	149	Mar. 21, 1895,	16,830	3.19	13,769	2.60	1,888	.36
Townsend, <sup>4</sup> . . .	466	May 24, 1899,	17,800	3.37	-	-	-	-
Tyngsborough, <sup>2,5</sup> . . .	44	-	15,552	2.94	15,588	2.95	-	-
Tyngsborough, <sup>5</sup> . . .	444	Dec. 18, 1898,	21,120	4.00	-	-	-	-
Wakefield, <sup>7</sup> . . .	400	Dec. 29, 1897,	17,979	3.41	-	-	-	-
Wakefield, <sup>8</sup> . . .	469	May 15, 1899,	8,580	1.62	-	-	-	-
Watertown, . . .	151	Mar. 27, 1895,	17,695	3.35	4,472	.85	-	-
Wayland, <sup>9</sup> . . .	212	Aug. 10, 1895,	15,450	2.93	12,005	2.28	-	-
Wayland, <sup>10</sup> . . .	334	Mar. 31, 1897,	11,620	2.20	-	-	-	-
Westford, <sup>11</sup> . . .	115	Jan. 15, 1895,	21,900	4.15	-	-	-	-
Westford, <sup>2,12</sup> . . .	503	-	15,840	3.00	-	-	-	-
Weston, <sup>9</sup> . . .	322	Feb. 24, 1897,	17,508	3.32	16,644	3.15	-	-
Weston, <sup>10</sup> . . .	323	Feb. 24, 1897,	21,269	4.03	-	-	-	-
Wilmington, <sup>13</sup> . . .	345	June 10, 1897,	37,682	7.14	-	-	-	-
Wilmington, <sup>1</sup> . . .	349	July 22, 1897,	9,918	1.88	-	-	-	-
Winchester, . . .	244	Apr. 28, 1896,	10,310	1.95	10,306	1.95	-	-
Woburn, <sup>14</sup> . . .	448	Dec. 21, 1898,	9,925	1.88	4,900	.93	3,970	.75
Woburn, <sup>15</sup> . . .	449	Dec. 21, 1898,	19,800	3.75	-	-	-	-
Totals, . . .			1,254,304	237.56	221,796	42.01	54,410	10.30

Eighty-eight petitions (eleven county, eleven city and sixty-six town), in six cities and forty-two towns.

Average distance petitioned for, 14,254 feet (2.70 miles).

Eighty-one lay-outs, in four cities and twenty-one towns.

Laid out on county petitions, 74,550 feet (14.12 miles).

Laid out on city petitions, 41,321 feet (7.82 miles).

Laid out on town petitions, 160,335 feet (30.37 miles).

Total length laid out, 275,206 feet (52.31 miles); average, 3,410 feet (.65 mile).

Percentage of length laid out to length petitioned for, 22.02.

<sup>1</sup> Boston-Lowell road.

<sup>2</sup> On county petition.

<sup>3</sup> Lowell-Lawrence road.

<sup>4</sup> Ashby-Pepperell road.

<sup>5</sup> Lowell Road, north of river.

<sup>6</sup> Lowell Road, south of river.

<sup>7</sup> Railroad and Nahant streets.

<sup>8</sup> Main and Lowell streets.

<sup>9</sup> Boston-Worcester road.

<sup>10</sup> Boston-Framingham road.

<sup>11</sup> Carlisle road.

<sup>12</sup> Great road to Lowell.

<sup>13</sup> Boston-Lawrence road.

<sup>14</sup> Cambridge Street.

<sup>15</sup> Main, School, Plain, Washington and Salem streets and Mishawum road.

*Nantucket County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
					1894-1900.		1901.	
			Feet.	Miles.	Feet.	Miles.	Feet.	Miles.
Nantucket, . . .	11	July 3, 1894,	34,185	6.47	27,290	5.17	3,770	.71

Eleven lay-outs.

Length laid out, 31,060 feet (5.88 miles).

Percentage of length laid out to length petitioned for, 91.50.

*Norfolk County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Bellingham, <sup>1</sup>	173	May 13, 1895,	3,900	.74	-	-	-	-
Bellingham, <sup>1</sup>	424	June 22, 1898,	46,700	8.84	-	-	-	-
Braintree,	116	Jan. 10, 1895,	6,700	1.27	2,431	.46	-	-
Cohasset,	153	Apr. 2, 1895,	11,300	2.14	9,161	1.73	-	-
Dedham,	307	Dec. 31, 1896,	3,900	.74	-	-	-	-
Foxborough, <sup>2</sup>	123	Jan. 29, 1895,	23,875	4.52	-	-	5,158	.97
Foxborough, <sup>3</sup>	163	Apr. 24, 1895,	5,840	1.11	-	-	-	-
Franklin,	298	Nov. 6, 1896,	9,227	1.75	-	-	-	-
Holbrook,	9	July 10, 1894,	11,848	2.24	5,817	1.11	-	-
Medway, <sup>4</sup>	311	Jan. 18, 1897,	5,535	1.05	-	-	-	-
Medway, <sup>5</sup>	368	Sept. 2, 1897,	9,292	1.76	-	-	-	-
Millis,	381	Nov. 12, 1897,	6,265	1.19	-	-	-	-
Milton,	190	June 15, 1895,	5,730	1.09	4,600	.87	-	-
Needham, <sup>6</sup>	154	Apr. 2, 1895,	9,050	1.71	-	-	-	-
Needham, <sup>7</sup>	478	Nov. 1, 1899,	5,900	1.12	-	-	5,252	.99
Norfolk, <sup>8</sup>	88	Sept. 21, 1894,	7,676	1.45	7,676	1.45	-	-
Norfolk, <sup>9</sup>	356	July 8, 1897,	21,467	4.07	-	-	-	-
Norwood,	51	July 21, 1894,	18,747	3.55	10,822	2.05	-	-
Quincy, <sup>10</sup>	237	Mar. 18, 1896,	9,900	1.87	2,607	.49	-	-
Quincy, <sup>11</sup>	292	Sept. 17, 1896,	6,515	1.23	-	-	-	-
Quincy, <sup>12</sup>	513	Jan. 11, 1901,	3,000	.57	-	-	-	-
Randolph,	208	Aug. 3, 1895,	9,050	1.71	-	-	-	-
Sharon,	159	Apr. 12, 1895,	28,713	5.44	-	-	-	-
Stoughton,	223	Jan. 15, 1896,	20,538	3.89	-	-	-	-
Walpole,	77	Aug. 4, 1894,	30,800	5.74	23,968	4.54	-	-
Wellesley, <sup>13</sup>	425	June 22, 1898,	21,120	4.00	-	-	-	-
Wellesley, <sup>14</sup>	495	May 8, 1900,	6,340	1.20	-	-	6,209	1.18
Westwood,	354	July 2, 1897,	5,610	1.06	5,530	1.05	-	-
Weymouth, <sup>15</sup>	59	July 27, 1894,	9,400	1.78	9,237	1.75	-	-
Weymouth, <sup>16</sup>	63	July 30, 1894,	1,330	.25	1,330	.25	-	-
Weymouth, <sup>17</sup>	414	Mar. 28, 1898,	28,090	5.32	-	-	-	-
Wrentham,	32	July 10, 1894,	38,150	7.23	24,830	4.70	4,000	.76
Wrentham, <sup>18</sup>	496	May 24, 1900,	-	-	-	-	-	-
Totals,			431,008	81.63	107,994	20.45	20,619	3.91

Thirty-three petitions (three city and thirty town), in one city and twenty-one towns.

Average distance petitioned for, 13,061 feet (2.47 miles).

Forty-five lay-outs, in one city and twelve towns.

Laid out on city petitions, 2,607 feet (.49 mile).

Laid out on town petitions, 126,006 feet (23.86 miles).

Total length laid out, 128,613 feet (24.36 miles).

Percentage of length laid out to distance petitioned for, 29.84.

<sup>1</sup> Woonsocket road.

<sup>2</sup> Mansfield-Norfolk road.

<sup>3</sup> Bird, Baker and Chestnut streets.

<sup>4</sup> Village Street.

<sup>5</sup> Village, Main and Oakland streets.

<sup>6</sup> Great Plain Avenue.

<sup>7</sup> Highland Avenue.

<sup>8</sup> Providence turnpike.

<sup>9</sup> Walpole-Franklin road.

<sup>10</sup> Washington Street.

<sup>11</sup> Randolph Street.

<sup>12</sup> Quincy Avenue.

<sup>13</sup> Worcester turnpike.

<sup>14</sup> Central Street to Natick line.

<sup>15</sup> Bridge Street, Hingham road.

<sup>16</sup> Ann Street.

<sup>17</sup> Washington and Main streets.

<sup>18</sup> For widening a portion of road previously petitioned for.

*Plymouth County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
Abington, <sup>1</sup>	58	July 27, 1894,	8,660	1.64	-	-	-	-
Abington, <sup>2</sup>	192	Apr. 19, 1895,	10,800	1.95	3,700	.70	2,550	.48
Bridgewater, <sup>3</sup>	217	Nov. 14, 1895,	6,600	1.25	-	-	-	-
Bridgewater, <sup>4</sup>	499	June 14, 1900,	19,270	3.65	-	-	-	-
Brockton, <sup>5</sup>	61	July 27, 1894,	5,525	1.05	-	-	-	-
Brockton, <sup>6</sup>	270	June 22, 1896,	9,860	1.87	9,860	1.87	-	-
Brockton, <sup>7</sup>	482	Feb. 8, 1900,	3,470	.66	3,468	.66	-	-
Brockton, <sup>8</sup>	505	Nov. 22, 1900,	3,770	.71	-	-	-	-
Carver, <sup>9</sup>	326	Mar. 4, 1897,	-	-	-	-	-	-
Carver,	438	Dec. 9, 1898,	28,400	5.38	-	-	-	-
Duxbury,	70	July 31, 1894,	33,000	6.25	10,850	2.05	-	-
East Bridgewater, <sup>9</sup>	240	Apr. 8, 1896,	-	-	-	-	-	-
East Bridgewater,	544	Apr. 27, 1901,	19,800	3.75	-	-	-	-
Halifax,	54	July 24, 1894,	23,463	4.44	-	-	-	-
Hanover,	66	July 30, 1894,	24,157	4.58	-	-	-	-
Hanson, <sup>10</sup>	262	June 12, 1896,	6,280	1.00	-	-	-	-
Hanson, <sup>11</sup>	263	June 12, 1896,	5,280	1.00	-	-	-	-
Hingham,	8	July 3, 1894,	27,666	5.24	14,037	2.66	-	-
Lakeville, <sup>9</sup>	174	May 14, 1895,	-	-	-	-	-	-
Lakeville, <sup>12</sup>	509	Jan. 1, 1901,	19,800	3.75	-	-	-	-
Lakeville, <sup>13</sup>	538	Apr. 10, 1901,	18,480	3.50	-	-	10,449	1.97
Marion,	29	July 10, 1894,	27,248	5.16	15,080	2.86	2,190	.42
Marshfield,	71	July 31, 1894,	40,400	7.65	10,564	2.00	2,086	.40
Mattapoisett,	30	July 10, 1894,	24,992	4.73	10,434	1.97	3,000	.57
Middleborough, <sup>14</sup>	68	July 31, 1894,	44,859	8.50	14,576	2.76	-	-
Middleborough, <sup>15</sup>	428	June 30, 1898,	32,310	6.12	-	-	-	-
Norwell,	246	May 5, 1896,	5,922	1.12	-	-	-	-
Pembroke,	234	Feb. 27, 1896,	5,280	1.00	-	-	-	-
Plymouth, <sup>16</sup>	72	July 31, 1894,	90,420	17.12	7,509	1.42	-	-
Plymouth, <sup>17</sup>	269	June 22, 1896,	5,846	1.11	5,846	1.11	-	-
Plymouth, <sup>17</sup>	374	Oct. 11, 1897,	6,915	1.31	6,937	1.32	-	-
Plymouth, <sup>16</sup>	501	Aug. 27, 1900,	-	-	-	-	-	-
Plympton,	121	Jan. 22, 1895,	5,280	1.00	-	-	-	-
Rochester,	172	May 13, 1895,	22,108	4.19	-	-	-	-
Rockland,	75	Aug. 1, 1894,	6,900	1.31	-	-	-	-
Scituate,	69	July 31, 1894,	28,500	5.40	9,328	1.77	-	-
Wareham, <sup>18</sup>	42	July 16, 1894,	42,000	7.95	3,014	.57	786	.15
Wareham, <sup>19</sup>	406	Feb. 5, 1898,	18,100	3.43	5,529	1.05	4,055	.77
West Bridgewater,	221	Dec. 4, 1895,	17,100	3.24	5,252	1.00	5,135	.97
Whitman, <sup>20</sup>	65	July 30, 1894,	8,900	1.68	8,957	1.69	-	-
Whitman, <sup>21</sup>	542	Apr. 27, 1901,	11,880	2.25	-	-	-	-
Totals,			717,741	135.94	144,991	27.46	30,261	5.73

Forty-one petitions (four city and thirty-seven town), in one city and twenty-four towns.

Average distance petitioned for, 17,506 feet (3.32 miles).

Fifty-eight lay-outs, in one city and thirteen towns.

Laid out on city petitions, 13,328 feet (2.52 miles).

Laid out on town petitions, 181,924 feet (30.87 miles).

Total length laid out, 175,252 feet (33.19 miles); average, 3,022 feet (.57 mile).

Percentage of length laid out to length petitioned for, 24.42.

<sup>1</sup> Randolph Street.

<sup>2</sup> Brockton Avenue.

<sup>3</sup> North Main Street.

<sup>4</sup> South Main Street.

<sup>5</sup> Crescent Street to Whitman.

<sup>6</sup> Belmont Street to Easton.

<sup>7</sup> Centre Street to Abington.

<sup>8</sup> Main Street to West Bridgewater.

<sup>9</sup> Covered by subsequent petition.

<sup>10</sup> Main Street.

<sup>11</sup> Whitman Street.

<sup>12</sup> From Freetown line.

<sup>13</sup> From Middleborough line.

<sup>14</sup> From Wareham line.

<sup>15</sup> From Bridgewater line.

<sup>16</sup> South Shore road.

<sup>17</sup> Pine Hills road.

<sup>18</sup> Fall River-Cape Cod road.

<sup>19</sup> "Onset" road.

<sup>20</sup> Brockton road.

<sup>21</sup> Bedford Street.

*Suffolk County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Chelsea, . . . .	56	July 25, 1894,	5,800	1.10	-	-	3,053	.58
Revere, <sup>1</sup> . . . .	60	July 27, 1894,	11,500	2.18	3,535	.67	-	-
Revere, <sup>2</sup> . . . .	346	June 10, 1897,	6,506	1.23	-	-	-	-
Revere, <sup>3</sup> . . . .	350	June 24, 1897,	3,469	.66	3,045	.58	-	-
Revere, <sup>4</sup> . . . .	407	Feb. 7, 1898,	11,000	2.09	-	-	-	-
Winthrop, <sup>5</sup> . . . .	73	July 31, 1894,	18,100	3.42	-	-	-	-
Winthrop, <sup>6</sup> . . . .	451	Dec. 29, 1898,	-	-	-	-	-	-
Totals, . . . .	.	.	56,375	10.68	6,580	1.25	3,053	.58

Seven petitions (one city and six town), in one city and two towns.

Average distance petitioned for, 8,054 feet (1.53 miles).

Five lay-outs, in one city and one town.

Total length laid out, 9,633 feet (1.83 miles).

Percentage of length laid out to distance petitioned for, 17.32.

<sup>1</sup> Salem turnpike.

<sup>2</sup> Ocean Avenue.

<sup>3</sup> Atlantic Avenue.

<sup>4</sup> Ocean Avenue extension.

<sup>5</sup> Revere Street and Crest Avenue.

<sup>6</sup> Covered by previous petition.

*Worcester County.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Ashburnham, . . . .	463	Apr. 17, 1899,	13,200	2.50	-	-	-	-
Athol, . . . .	37	July 12, 1894,	16,800	3.18	8,475	1.61	-	-
Auburn, . . . .	148	Mar. 30, 1895,	28,095	5.32	14,753	2.80	5,207	.99
Auburn, <sup>1</sup> . . . .	433	Aug. 24, 1895,	1,437	.27	1,437	.27	-	-
Barre, . . . .	146	Mar. 10, 1895,	15,286	2.90	8,611	1.63	-	-
Blackstone, <sup>2</sup> . . . .	140	Mar. 2, 1895,	7,700	1.46	-	-	-	-
Blackstone, <sup>3</sup> . . . .	399	Dec. 29, 1897,	12,304	2.33	6,156	1.17	-	-
Bolton, <sup>4</sup> . . . .	185	June 3, 1895,	5,300	1.00	-	-	-	-
Bolton, <sup>5</sup> . . . .	472	June 5, 1899,	32,500	6.16	-	-	-	-
Boylston, . . . .	398	Dec. 23, 1897,	10,560	2.00	-	-	-	-
Brookfield, <sup>6</sup> . . . .	111	Jan. 2, 1895,	5,972	1.13	-	-	-	-
Brookfield, <sup>6</sup> . . . .	300	Nov. 27, 1896,	22,025	4.17	7,356	1.39	-	-
Charlton, <sup>7</sup> . . . .	261	June 11, 1896,	10,900	2.06	-	-	5,800	1.10

<sup>1</sup> Relocation.

<sup>2</sup> South Main Street.

<sup>3</sup> North Main Street.

<sup>4</sup> Hudson road.

<sup>5</sup> Stow-Lancaster road.

<sup>6</sup> Springfield-Worcester road.

<sup>7</sup> Charlton Depot to Charlton City.

*Worcester County — Continued.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Charlton, <sup>1</sup>	389	Dec. 13, 1897,	5,280	1.00	-	-	-	-
Dana,	294	Sept. 24, 1896,	10,560	2.00	-	-	-	-
Douglas,	384	Dec. 1, 1897,	10,567	2.00	-	-	-	-
Dudley,	391	Dec. 16, 1897,	15,840	3.00	-	-	-	-
Fitchburg, <sup>2</sup>	17	July 5, 1894,	5,493	1.04	5,133	.97	-	-
Fitchburg, <sup>3</sup>	62	July 20, 1894,	20,800	3.94	3,050	.58	2,600	.49
Fitchburg, <sup>4</sup>	93	Oct. 3, 1894,	10,560	2.00	-	-	-	-
Fitchburg, <sup>5</sup>	339	May 14, 1897,	5,280	1.00	3,196	.61	-	-
Gardner,	13	July 3, 1894,	29,656	5.62	15,820	3.00	1,900	.36
Grafton,	213	Aug. 15, 1895,	16,971	3.21	8,204	1.56	-	-
Hardwick,	207	July 31, 1895,	5,357	1.01	2,052	.39	2,271	.43
Harvard,	260	June 11, 1896,	25,700	4.87	3,709	.70	-	-
Holden, <sup>6</sup>	10	July 3, 1894,	27,920	5.29	19,860	3.76	-	-
Holden, <sup>6</sup>	437	Nov. 2, 1898,	9,240	1.75	-	-	-	-
Hopedale, <sup>7</sup>	144	Mar. 16, 1895,	6,040	1.14	-	-	-	-
Hopedale, <sup>8</sup>	423	June 20, 1898,	1,760	.33	-	-	-	-
Hubbardston,	232	Feb. 24, 1896,	10,560	2.00	-	-	-	-
Lancaster, <sup>9</sup>	137	Feb. 28, 1895,	24,808	4.70	-	-	-	-
Lancaster, <sup>10</sup>	554	July 11, 1901,	7,920	1.50	-	-	-	-
Leicester,	25	July 9, 1894,	28,110	5.32	25,680	4.87	-	-
Leominster, <sup>9</sup>	91	Sept. 29, 1894,	26,400	5.00	-	-	-	-
Leominster, <sup>11</sup>	543	Apr. 29, 1901,	14,520	2.75	-	-	7,000	1.33
Lunenburg,	16	July 5, 1894,	30,772	5.83	7,650	1.45	2,113	.40
Mendon,	84	Aug. 20, 1894,	18,432	3.49	-	-	-	-
Millbury, <sup>12</sup>	372	Oct. 2, 1897,	19,260	3.65	2,000	.38	-	-
Millbury, <sup>13</sup>	484	Feb. 26, 1900,	4,224	.80	-	-	-	-
Millbury, <sup>14</sup>	552	June 13, 1901,	7,565	1.43	-	-	-	-
Milford, <sup>7</sup>	420	June 6, 1898,	9,290	1.76	-	-	-	-
Milford, <sup>8</sup>	421	June 6, 1898,	5,550	1.05	-	-	-	-
New Braintree,	210	Aug. 6, 1895,	939	.18	920	.17	-	-
Northborough, <sup>15</sup>	122	Jan. 24, 1895,	3,840	.73	-	-	-	-
Northborough, <sup>16</sup>	153	Apr. 1, 1895,	11,000	2.08	7,199	1.33	-	-

<sup>1</sup> From Oxford line.<sup>2</sup> Westminster road.<sup>3</sup> Ashby road.<sup>4</sup> Leominster road.<sup>5</sup> Lunenburg road.<sup>6</sup> Worcester-Gardner road.<sup>7</sup> Milford-Mendon road.<sup>8</sup> Milford-Upton road.<sup>9</sup> Fitchburg road.<sup>10</sup> Lower road.<sup>11</sup> Central Street.<sup>12</sup> Grafton-Worcester road.<sup>13</sup> Canal and Providence streets.<sup>14</sup> Sutton road.<sup>15</sup> Westborough Hospital road.<sup>16</sup> Worcester-Marlborough road.

## Worcester County—Continued.

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Northborough, <sup>1,2</sup>	373	Oct. 4, 1897,	-	-	2,231	.42	-	-
Northborough, <sup>3</sup>	466	May 8, 1899,	16,750	3.17	2,208	.42	-	-
North Brookfield,	324	Feb. 25, 1897,	11,913	2.26	-	-	-	-
Oakham,	199	July 11, 1895,	15,045	2.85	-	-	-	-
Oxford, <sup>4</sup>	108	Dec. 24, 1894,	33,550	6.35	-	-	-	-
Oxford, <sup>4</sup>	404	Jan. 25, 1898,	10,560	2.00	-	-	-	-
Oxford, <sup>5</sup>	583	Mar. 27, 1901,	3,000	.57	-	-	-	-
Paxton,	33	July 10, 1894,	28,500	5.40	17,116	3.24	-	-
Petersham,	296	Oct. 22, 1896,	23,744	4.50	-	-	-	-
Phillipston,	14	July 3, 1894,	17,500	3.31	6,301	1.19	-	-
Princeton, <sup>6</sup>	193	June 22, 1895,	14,221	2.69	5,252	.99	-	-
Princeton, <sup>7</sup>	452	Dec. 29, 1898,	5,730	1.09	-	-	-	-
Royalston,	302	Dec. 7, 1896,	23,195	4.39	-	-	-	-
Rutland, <sup>8</sup>	141	Mar. 5, 1895,	24,581	4.66	-	-	-	-
Rutland, <sup>9</sup>	142	Mar. 5, 1895,	24,268	4.60	-	-	-	-
Shrewsbury, <sup>3</sup>	21	July 6, 1894,	11,000	2.08	11,000	2.08	-	-
Shrewsbury, <sup>3</sup>	308	Jan. 6, 1897,	4,092	.78	4,092	.78	-	-
Shrewsbury, <sup>3</sup>	394	Dec. 22, 1897,	2,800	.53	2,800	.53	-	-
Shrewsbury, <sup>3</sup>	429	July 11, 1898,	10,560	2.00	2,675	.51	-	-
Southborough, <sup>10</sup>	161	Apr. 18, 1895,	5,300	1.00	-	-	-	-
Southborough, <sup>10</sup>	447	Dec. 20, 1898,	5,440	1.03	-	-	-	-
Southborough, <sup>10</sup>	548	May 16, 1901,	5,280	1.00	-	-	-	-
Southbridge, <sup>11</sup>	403	Jan. 13, 1898,	9,846	1.87	-	-	-	-
Southbridge, <sup>12</sup>	486	Mar. 22, 1900,	2,640	.50	-	-	-	-
Southbridge, <sup>13</sup>	528	Feb. 26, 1901,	4,300	.81	-	-	-	-
Spencer, <sup>14</sup>	49	July 19, 1894,	23,418	4.44	6,800	1.29	1,650	.31
Spencer, <sup>14,3</sup>	320	Feb. 19, 1897,	-	-	-	-	-	-
Sterling, <sup>15</sup>	168	May 1, 1895,	5,280	1.00	4,034	.76	-	-
Sterling, <sup>15</sup>	318	Feb. 18, 1897,	5,280	1.00	-	-	-	-
Sterling, <sup>16</sup>	319	Feb. 18, 1897,	12,882	2.44	-	-	-	-
Sterling, <sup>15</sup>	358	July 8, 1897,	500	.09	-	-	-	-

<sup>1</sup> Westborough Hospital road.<sup>2</sup> Covered by previous petition.<sup>3</sup> Worcester-Marlborough road.<sup>4</sup> Worcester-Webster road.<sup>5</sup> Relocation.<sup>6</sup> Princeton Depot road.<sup>7</sup> Sterling road.<sup>8</sup> Worcester-Gardner road.<sup>9</sup> Worcester-Athol road.<sup>10</sup> Westborough-Framingham road.<sup>11</sup> Charlton City road.<sup>12</sup> West Main Street.<sup>13</sup> Dudley road.<sup>14</sup> Springfield-Worcester road.<sup>15</sup> Fitchburg road.<sup>16</sup> Lancaster road.



*Worcester County—Concluded.*

COUNTY, CITY OR TOWN.	No.	Petition received.	LENGTH PETITIONED FOR.		LENGTH LAID OUT.			
			Feet.	Miles.	1894-1900.		1901.	
					Feet.	Miles.	Feet.	Miles.
Sterling, <sup>1</sup> . . . .	396	Dec. 23, 1897,	10,091	1.91	2,807	.53	-	-
Sturbridge, . . . .	169	May 7, 1895,	12,600	2.39	3,094	.59	-	-
Sutton, <sup>2</sup> . . . .	85	Aug. 25, 1894,	6,096	1.16	-	-	-	-
Sutton, <sup>3</sup> . . . .	385	Dec. 1, 1897,	7,770	1.47	2,599	.49	2,681	.51
Templeton, . . . .	86	Sept. 1, 1894,	31,600	5.98	3,300	.63	2,000	.38
Upton, . . . .	305	Dec. 18, 1896,	27,443	5.20	-	-	-	-
Uxbridge, <sup>4</sup> . . . .	89	Sept. 28, 1894,	15,759	2.98	6,717	1.28	2,633	.50
Uxbridge, <sup>5</sup> . . . .	379	Nov. 2, 1897,	6,140	1.17	-	-	-	-
Warren, <sup>6</sup> . . . .	15	July 5, 1894,	28,020	5.31	14,908	2.82	2,515	.47
Warren, <sup>6</sup> . . . .	39	July 16, 1894,	18,868	3.57	-	-	-	-
Webster, . . . .	392	Dec. 16, 1897,	7,700	1.46	-	-	-	-
Westborough, <sup>6</sup> . . . .	160	Apr. 14, 1895,	1,100	.21	1,100	.21	-	-
Westborough, <sup>7</sup> . . . .	306	Dec. 20, 1896,	-	-	-	-	-	-
Westborough, <sup>8</sup> . . . .	371	Sept. 27, 1897,	2,579	.49	2,579	.49	-	-
Westborough, <sup>8</sup> . . . .	401	Jan. 10, 1898,	6,048	1.15	-	-	-	-
Westborough, <sup>8</sup> . . . .	475	June 18, 1899,	34,320	6.50	-	-	-	-
Westborough, <sup>9</sup> . . . .	537	Apr. 4, 1901,	4,488	.85	-	-	-	-
West Boylston, <sup>1</sup> . . . .	310	Jan. 15, 1897,	6,100	1.16	6,100	1.16	-	-
West Boylston, <sup>1</sup> . . . .	369	Sept. 22, 1897,	3,900	.74	2,100	.40	-	-
West Brookfield, <sup>10</sup> . . . .	222	Dec. 5, 1895,	800	.15	800	.15	-	-
West Brookfield, <sup>4</sup> . . . .	312	Jan. 25, 1897,	13,350	2.53	4,300	.81	3,650	.69
West Brookfield, <sup>4</sup> . . . .	382	Nov. 12, 1897,	5,280	1.00	-	-	-	-
Westminster, . . . .	23	July 9, 1894,	30,597	5.79	16,825	3.00	-	-
Winchendon, . . . .	317	Feb. 17, 1897,	8,866	1.68	-	-	-	-
Worcester, <sup>11</sup> . . . .	162	Apr. 22, 1895,	7,636	1.44	7,157	1.35	-	-
Worcester, <sup>12</sup> . . . .	327	Mar. 4, 1897,	12,155	2.30	3,486	.66	-	-
Worcester, <sup>13</sup> . . . .	828	Mar. 4, 1897,	12,645	2.39	2,850	.54	-	-
Totals, . . . .	.	.	1,295,419	245.34	295,487	55.96	42,020	7.96

One hundred and three petitions (seven city and ninety-six town), in two cities and fifty-four towns.

Average distance petitioned for, 12,577 feet (2.38 miles).

One hundred and twenty-one lay-outs, in two cities and thirty-two towns.

Laid out on city petitions, 27,472 feet (5.20 miles).

Laid out on town petitions, 310,035 feet (58.72 miles).

Total length laid out, 337,507 feet (63.92 miles); average, 2,789 feet (.53 mile).

Percentage of length laid out to length petitioned for, 26.05.

<sup>1</sup> Fitchburg road.

<sup>2</sup> Blackstone Valley road.

<sup>3</sup> Mendon road.

<sup>4</sup> Springfield-Worcester road.

<sup>5</sup> Brimfield road.

<sup>6</sup> Westborough Hospital road.

<sup>7</sup> Covered by subsequent petition.

<sup>8</sup> Southborough-Grafton road.

<sup>9</sup> East and West Main streets.

<sup>10</sup> Ware road.

<sup>11</sup> Pleasant Street to Paxton.

<sup>12</sup> Grove Street to Holden.

<sup>13</sup> West Boylston Street.

## SUMMARY BY COUNTIES.

COUNTIES.	PETITIONS RECEIVED.				PETITIONS SITUATED IN —			LAY-OUTS MADE IN —			Number of Lay-outs.
	County.	City.	Town.	Total.	Cities.	Towns.	Total.	Cities.	Towns.	Total.	
Barnstable, . . .	-	-	32	32	-	15	15	-	11	11	47
Berkshire, . . .	15	4	35	54	2	23	25	2	11	13	41
Bristol, . . .	1	4	26	31	2	16	18	1	12	13	45
Dukes, . . .	2	-	4	6	-	5	5	-	4	4	15
Essex, . . .	2	16	39	57	7	24	31	7	12	19	45
Franklin, . . .	1	-	43	44	-	16	16	-	18	18	43
Hampden, . . .	4	1	20	25	2	17	19	1	9	10	45
Hampshire, . . .	1	3	35	39	1	17	18	1	11	12	40
Middlesex, . . .	11	11	66	88	6	42	48	4	21	25	81
Nantucket, . . .	-	-	1	1	-	1	1	-	1	1	11
Norfolk, . . .	-	3	30	33	1	21	22	1	12	13	45
Plymouth, . . .	-	4	37	41	1	24	25	1	13	14	58
Suffolk, . . .	-	1	6	7	1	2	3	1	1	2	5
Worcester, . . .	-	7	96	103	2	54	56	2	32	34	121
Totals, . . .	37	54	470	561	25	277	302	21	163	184	642

SUMMARY BY COUNTIES — *Concluded.*

COUNTIES.	LENGTHS PETITIONED FOR.		LENGTHS LAID OUT.						Percentage.
			1894-1900.		1901.		TOTAL.		
	Feet.	Miles.	Feet.	Miles.	Feet.	Miles.	Feet.	Miles.	
Barnstable, .	592,271	112.17	149,032	28.23	46,100	8.73	195,132	36.96	32.89
Berkshire, . .	534,415	101.22	116,809	22.12	15,828	3.00	132,637	25.12	24.82
Bristol, . .	532,434	100.84	120,092	22.74	32,282	6.11	152,374	28.85	28.62
Dukes, . .	119,723	22.67	43,088	8.16	2,763	.52	45,851	8.68	38.29
Essex, . .	814,106	154.19	134,741	25.52	17,902	3.39	152,643	28.91	18.75
Franklin, . .	467,063	88.46	101,944	19.31	14,008	2.65	115,952	21.96	24.83
Hampden, . .	496,033	93.95	108,921	20.63	28,773	5.45	137,694	26.08	27.76
Hampshire, . .	411,388	77.91	89,173	16.89	13,916	2.64	103,089	19.53	25.07
Middlesex, . .	1,254,304	237.56	221,796	42.01	54,410	10.30	276,206	52.31	22.02
Nantucket, . .	34,186	6.47	27,290	5.17	3,770	.71	31,060	5.88	91.60
Norfolk, . .	431,008	81.63	107,994	20.45	20,619	3.91	128,613	24.36	29.84
Plymouth, . .	717,741	135.94	144,991	27.46	30,261	5.73	175,252	33.19	24.42
Suffolk, . .	56,375	10.68	6,580	1.25	3,053	.58	9,633	1.83	17.32
Worcester, . .	1,295,419	245.34	295,487	55.96	42,020	7.96	337,507	63.92	26.05
Totals, . .	7,756,455	1,469.02	1,667,938	315.90	325,705	61.68	1,993,643	377.58	25.70

Laid out on county petitions, 396,253 feet (75.05 miles).

Laid out on city petitions, 170,786 feet (32.34 miles).

Laid out on town petitions, 1,426,604 feet (270.19 miles).

Average distance petitioned for, 13,826 feet (2.62 miles).

Average length laid out, 3,105 feet (.59 mile).

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